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**Spring and mineral waters**, occurrence of pentathionic acid in (MACLAURIN), P., 10.
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**Yeast**, influence of salts on the autofermentation of (HARDEN and PAINE), P., 103.

# FORMULA INDEX.

THE following index of organic compounds of known empirical formula is arranged according to Richter's system (see *Lexikon der Kohlenstoff-Verbindungen*).

The elements are given in the order C, H, O, N, Cl, Br, I, F, S, P, and the remainder alphabetically.

The compounds are arranged—

Firstly, in groups according to the number of carbon atoms (thus $C_1$ group, $C_2$ group, etc.).

Secondly, according to the number of other elements besides carbon contained in the molecule (thus 5 IV indicates that the molecule contains five carbon atoms and four other elements).

Thirdly, according to the nature of the elements present in the molecule (given in the above order).

Fourthly, according to the number of atoms of each single element (except carbon) present in the molecule.

Simple metallic salts of acids are indexed under the respective acids.

Simple salts of bases (for example, hydrochlorides, platinichlorides, and picrates), when described for the purpose of further identifying the base, are indexed under the latter.

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**$CH_4$** Methane, equilibrium of the formation of (PRING and FAIRLIE), P., 305.

**CO** Carbon monoxide, effect of temperature on the dissociation equilibrium of (RHEAD and WHEELER), T., 1140; P., 126; photochemical and thermal reaction of chlorine with (CHAPMAN and GEE), T., 1726; P., 223.

**$CO_2$** Carbon dioxide, rôle of, in bleaching processes (HIGGINS), T., 858; P., 67.

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**$CH_2O_2$** Formic acid, interaction of, and cellulose (CROSS and BEVAN), T., 1450; P., 149.

**$CH_5N$** Methylamine, nitrite of (RÂY and RAKSHIT), T., 1016; P., 22.

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**$CH_3O_2N$** Nitromethane, condensation of aromatic aldehydes with (REMFRY), T., 282; P., 20.

**$CH_4ON_2$** Carbamide, transformation of ammonium cyanate into (CHATTAWAY), P., 280.

### 1 IV

**$CH_2ON_2Cl$** Dichlorocarbamide, formation of, and its behaviour with amines (DATTA), P., 264.

**$CH_5O_3SP$** Methyl dihydrogen α-thiophosphate, disodium salt ($+ 6H_2O$) (EMMETT and JONES), T., 719; P., 72.

## $C_2$ Group.

**$C_2H_2O_3$** Glyoxylic acid ($+ H_2O$), brucine salt of (HILDITCH), T., 234.

**$C_2H_2O_4$** Oxalic acid, solubility of, in other acids (MASSON), P., 328; stability of the double salts of, with sodium and nickel and with sodium and cobalt (DODGSON), P., 260.

$C_2H_4O_2$ Acetic acid, purification of (Orton, Edwards and King), T., 1178; P., 120; purification and properties of (Bousfield and Lowry), T., 1432; P., 187; ethyl acetate, ethyl alcohol and water, equilibrium between (Jones and Lapworth), T., 1427; P., 143; detection and estimation of small quantities of acetic anhydride in (Edwards and Orton), T., 1181; P., 121.

$C_2H_4O_2$ Glycollaldehyde, bimolecular (McCleland), T., 1827; P., 224.

$C_2H_4O_3$ Glycollic acid, alkaline cupric salts of (Pickering), T., 1347; P., 192.

$C_2H_6O$ Ethyl alcohol, influence of water on the boiling point of, at various pressures (Wade and Merriman), T., 997; P., 65; influence of temperature on the basic water value of (Jones and Lapworth), T., 917; P., 100; acetic acid, ethyl acetate and water, equilibrium between (Jones and Lapworth), T., 1427; P., 143; heat of hydrolysis of the hydrochloride of (Jones and Lapworth), P., 143; potassium salt, action of hydrogen sulphide on (Rule), T., 558; P., 60; sodium salt, action of hydrogen sulphide on (Rule), T., 558; P., 60.

$C_2H_6N_4$ β-Triazoethylamine, and its hydrochloride (Forster and Newman), T., 1278; P., 154.

$C_2H_7N$ Dimethylamine, nitrite of (Rây and Rakshit), T., 1472; P., 72, 122.

Ethylamine, nitrite of (Rây and Rakshit), T., 1470; P., 72, 122.

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$C_2H_2O_2S_2$ Dithiooxalic acid, complex salts of (Robinson and Jones), P., 279.

$C_2H_3OCl$ Acetyl chloride, condensation of, with salicylamide (Titherley and Hicks), T., 866; P., 102.

$C_2H_5O_2N$ Glycine, interaction of alloxan and (Hartley and Wootton), T., 288; P., 2.

## $C_3$ Group.

$C_3H_2O_5$ Mesoxalic acid (+ $H_2O$), brucine salt of (Hilditch), T., 235.

$C_3H_4O_2$ Pyruvic acid, brucine salt of (Hilditch), T., 234.

$C_3H_6O$ Acetone, electrochemistry of solutions in (Roshdestwensky and Lewis), T., 2138; P., 266; condensation of, in the presence of phosphoric acid (Nilogi), T., 1249; P., 71.

$C_3H_6N$ Trimethylamine, compound of, and cuprous thiocyanate (Lang), P., 140.

$C_3H_6N_2$ Malonamide, condensation of, with ethyl and methyl diethylmalonate (Remfry), T., 620.

$C_3H_9N$ Trimethylamine, nitrite of (Rây and Rakshit), T., 1473; P., 72, 122.

Propylamine, nitrite of (Rây and Rakshit), P., 291.

### 3 III

$C_3H_4ON_2$ Cyanoacetamide, preparation of (Thole and Thorpe), T., 429.

$C_3H_7ON_5$ β-Triazoethylcarbamide (Forster and Newman), T., 1281; P., 154.

### 3 IV

$C_3H_9O_3SP$ Trimethyl α- and β-thiophosphates, preparation of (Emmett and Jones), T., 713; P., 72.

## $C_4$ Group.

$C_4H_4O_5$ Oxalacetic acid, brucine salt of (Hilditch), T., 235.

$C_4H_6O$ Crotonaldehyde, condensation of (Smedley), T., 1627; P., 208.

$C_4H_6O_3$ Acetoacetic acid, brucine salt of (Hilditch), T., 234.

$C_4H_6O_3$ Acetic anhydride, detection and estimation of small quantities of, in acetic acid (EDWARDS and ORTON), T., 1181 ; P., 121.

$C_4H_6O_4$ Succinic acid, brucine hydrogen salt of (PICKARD and KENYON), T., 60.

$C_4H_6O_5$ *l*-Malic acid, influence of electrolytes on the optical activity of, in aqueous solution (STUBBS), T., 2265 ; P., 225.

$C_4H_6O_6$ Tartaric acid, salts of (HILDITCH), T., 236 ; cupric salts of (PICKERING), T., 169 ; P., 7.

$C_4H_6N_2$ 4(or 5)-Methylglyoxaline, derivatives of (EWINS), T., 2052 ; P., 259.

$C_4H_7N_3$ 4(or 5)-Aminomethylglyoxaline, salts of (PYMAN), T., 2175.

$C_4H_8O_2$ Ethyl acetate, acetic acid, ethyl alcohol and water, equilibrium between (JONES and LAPWORTH), T., 1427 ; P., 143.

$C_4H_9I$ *l*-β-Iodobutane (PICKARD and KENYON), T., 65.

$C_4H_{10}O$ Ethyl ether, physical properties of mixtures of sulphuric acid and (POUND), T., 698 ; estimation of traces of water in (TYRER), P., 142.

$C_4H_{10}O$ Trimethylcarbinol, cryoscopic ebullioscopic and association constants of (ATKINS), T., 10.

*dl*- and *d*-Methylethylcarbinol, and their derivatives (PICKARD and KENYON), T., 59, 60, 64.

$C_4H_{11}N$ *n*-Butylamine, salts of (HILDITCH), T., 236 ; nitrite of (RÂY and RAKSHIT), P., 291.

## 4 III

$C_4H_2O_4N_2$ Alloxan, interaction of, and glycine (HURTLEY and WOOTTON), T., 288 ; P., 2 ; relation of, to triketohydrindene hydrate (RUHEMANN), T., 792 ; P., 97.

$C_4H_4O_4Br_2$ *s*-Dibromosuccinic acid, action of aliphatic amines on (FRANKLAND and SMITH), P., 320 ; action of benzylamine on (FRANKLAND), T., 1775 ; P., 206.

Dibromosuccinic acids, configuration of the stereoisomeric (MCKENZIE), P., 150.

$C_4H_5N_2Cl$ 4(or 5)-Chloromethylglyoxaline, and its salts (PYMAN), T., 675 ; P., 91.

$C_4H_6ON_2$ 4(or 5)-Hydroxymethylglyoxaline, and its salts (PYMAN), T., 673 ; P., 91.

$C_4H_7N_3S$ 2-Thiol-4(or 5)-aminomethylglyoxaline, and its salts (PYMAN), T., 672; P., 91.

$C_4H_{12}ON_2$ Tetramethylammonium hyponitrite, decomposition of, by heat (RÂY and SEN), T., 1466 ; P., 121.

$C_4H_{12}O_2N_2$ Tetramethylammonium nitrite, decomposition of, by heat (RÂY and SEN), P., 4.

## 4 IV

$C_4H_{10}O_4N_4Hg_3$ Trimercuridiethylammonium nitrite (+ $H_2O$) (RÂY and RAKSHIT), T., 1972 ; P., 220.

# $C_5$ Group.

$C_5H_{10}$ 1:2-Dimethyl*cyclo*propane (ÖSTLING), P., 315.

## 5 II

$C_5H_4O_2$ 1:2-Diketo-$\Delta^3$-*cyclo*pentene, absorption spectra of derivatives and isomerides of (PURVIS), T., 107.

$C_5H_5N$ Pyridine, chlorine derivatives of (SELL), T., 1679 ; P., 220 ; compound of copper benzoate and (BRADY), P., 94 ; nitrite of (NEOGI), T., 1254 ; P., 71 ; methonitrite of (NEOGI), T., 1600 ; P., 208.

**$C_5H_5N_3$** 4(or 5)-Cyanomethylglyoxaline, and its salts (PYMAN), T., 676; P., 91.

**$C_5H_6O_5$** Acetonedicarboxylic acid, brucine salt of (HILDITCH), T., 235.

**$C_5H_8O_3$** Laevulic acid, brucine salt of (HILDITCH), T., 235.

**$C_5H_9N_3$** 4(or 5)-β-Aminoethylglyoxaline, formation of, from histidine, and its salts (EWINS and PYMAN), T., 339; P., 45; new synthesis of (PYMAN), T., 668; P., 91.

4(or 5)-Methyl-5(or 4)-aminomethylglyoxaline, and its salts (EWINS), T., 2059; P., 259.

**$C_5H_{11}N$** Piperidine, nitrite and methonitrite of (NEOGI), T., 1599; P., 208.

**$C_5H_{11}I$** *l*-β-Iodopentane (PICKARD and KENYON), T., 65.

**$C_5H_{12}O$** *dl*- and *d*-Methyl-*n*-propylcarbinols, rotation and derivatives of (PICKARD and KENYON), T., 59, 60, 65.

Methyl*iso*propylcarbinol, rotation of (PICKARD and KENYON), P., 324.

5 III

**$C_5H_4O_6N_2$** 3:5-Dinitroquinol, and its metallic salts (SHAW), T., 1609; P., 98.

**$C_5H_4N_2Cl_2$** 3:5-Dichloro-4-aminopyridine (SELL), T., 1684; P., 221.

**$C_5H_6O_2N_2$** Glyoxaline-4(or 5)-acetic acid, and its salts (PYMAN), T., 680.

**$C_5H_7N_2Cl$** 4(or 5)-Methyl-5(or 4)-chloromethylglyoxaline, and its hydrochloride (EWINS), T., 2056; P., 259.

**$C_5H_7N_3S$** Glyoxaline-4(or 5)-acetothioamide (PYMAN), T., 682.

**$C_5H_8ON_2$** 4(or 5)-Methyl-5(or 4)-hydroxymethylglyoxaline, and its salts (EWINS), T., 2055; P., 259.

**$C_5H_8N_4S_2$** 2-Thiol-4(or 5)-thiocarbamidomethylglyoxaline (PYMAN), T., 672.

**$C_5H_9ON_3$** β-Triazo-β-methylbutan-γ-one (FORSTER and VAN GELDEREN), T., 241; P., 19.

**$C_5H_9O_2N$** *N*-Allylglycine (ALPERN and WEIZMANN), T., 87.

**$C_5H_9O_2Br$** α-Monobromoacetin (ALPERN and WEIZMANN), T., 84.

**$C_5H_{10}ON_4$** β-Triazo-β-methylbutan-γ-oxime (FORSTER and VAN GELDEREN), T., 241; P., 19.

**$C_5H_{12}OS_2$** Diethylenesulphidemethylsulphine hydroxide, decomposition of, in aqueous solution (GREEN AND SUTHERLAND), T., 1174; P., 140.

5 IV

**$C_5H_3ONCl_2$** 3:5-Dichloro-4-hydroxypyridine (SELL), T., 1682; P., 221.

4:5-Dichloro-3-hydroxypyridine (SELL), T., 1681; P., 221.

## $C_6$ Group.

**$C_6H_6$** Benzene, absorption spectra of chlorine and bromine derivatives of (PURVIS), T., 1699; P., 218; absorption spectra of iodine derivatives of (PURVIS), T., 2318; P., 280.

6 II

**$C_6H_4Cl_2$** *o*-, *m*-, and *p*-Dichlorobenzene, absorption spectra of (BALY), T., 856; P., 72.

**$C_6H_5N_3$** αβγ-Tricyanopropane (THOLE and THORPE), T., 1689.

**$C_6H_5Cl$** Chlorobenzene, absorption spectrum of (BALY), T., 856; P., 72; absorption spectra of, as vapour, liquid, and in solution (PURVIS), T., 811; P., 71.

**$C_6H_5Br$** Bromobenzene, absorption spectra of, as vapour, liquid, and in solution (PURVIS), T., 811; P., 71.

**$C_6H_6O_2$** Quinol, course of chemical change in, under the influence of radiant energy (HARTLEY and LITTLE), T., 1079; P., 137; copper derivative of (THOMPSON), P., 155.

**$C_6H_6O_3$** 6-Hydroxy-3-methyl-α-pyrone (THOLE and THORPE), T., 2223.

**$C_6H_7N$** Aniline, solubility of, in aqueous solutions of its hydrochloride (SIDGWICK, PICKFORD and WILSDON), T., 1122; P., 127; conductivity and viscosity of aqueous solutions of the hydrochloride of (SIDGWICK and WILSDON), T., 1118; P., 127; effect of heat on a mixture of benzaldehydecyanohydrin and (EVEREST and MCCOMBIE), T., 1752; P., 218; salts of (HILDITCH), T., 236; compound of, with antimony trichloride (MAY), T., 1384; P., 125.

Picoline, methonitrite of (NEOGI), T., 1601; P., 208.

**$C_6H_7N_3$** 1-Methyl-4- and 5-cyanomethylglyoxalines, and their salts (PYMAN), T., 2779; P., 275.

4(or 5)-Methyl-5(or 4)-cyanomethylglyoxaline, and its salts (EWINS), T., 2056; P., 259.

**$C_6H_8O_6$** Tricarballylic acid, formation of (THOLE and THORPE), T., 1684; P., 219.

**$C_6H_{10}O_8$** Saccharic acid, cupric salts of (PICKERING), T., 175; P., 7.

Mucic acid, cupric salts of (PICKERING), T., 176; P., 7.

**$C_6H_{11}N_3$** 1-Methyl-4- and 5-β-aminoethylglyoxalines, and their salts (PYMAN), T., 2182; P., 275.

4(or 5)-Methyl-5(or 4)-β-aminoethylglyoxaline, and its salts (EWINS), T., 2057; P., 259.

4(or 5)-Methyl-5(or 4)-methylaminomethylglyoxaline, and its salts (EWINS), T., 2058; P., 259.

**$C_6H_{13}I$** *l*-β-Iodohexane (PICKARD and KENYON), T., 65.

**$C_6H_{14}O$** *d*-Methyl-*n*-butylcarbinol, and its derivatives (PICKARD and KENYON), T., 60, 65.

Methyl-*n* and *iso*-butylcarbinols, rotation and derivatives of (PICKARD and KENYON), T., 59, 65.

*d*- and *l*-Methyl*iso*butylcarbinols, and their derivatives (PICKARD and KENYON), T., 60.

Ethyl*iso*propylcarbinol, rotation of (PICKARD and KENYON), P., 324.

**$C_6H_{15}N$** Triethylamine, nitrite of (RÂY and RAKSHIT), P., 264; preparation and sublimation of (NEOGI), T., 1252; P., 71.

**$C_6H_{26}O_8$** Pinacone hydrate, preparation of (PARRY), T., 1170; P., 141.

## 6 III

**$C_6H_3O_2N$** Aminolauronic acid, hydrochloride of, preparation of (WEIR), T., 1270.

**$C_6H_3O_6N_3$** *s*-Trinitrobenzene, additive compounds of phenols and phenolic ethers with (SUDBOROUGH and BEARD), T., 212; P., 5.

**$C_6H_3O_7N_3$** Picric acid, colour and molecular state of (DREAPER), T., 2094; P., 244.

**$C_6H_3NI_4$** 2:3:4:6-Tetraiodoaniline (BOYLE), T., 333.

**$C_6H_4O_6N_2$** Dinitrodihydroxybenzenes, preparation of salts of the (SHAW), P., 14.

**$C_6H_4NCl_3$** *s*-Trichloroaniline, preparation of (ORTON and KING), T., 1193.

**$C_6H_5O_2Br$** ω-Bromomethylfurfuraldehyde, reactions of (COOPER and NUTTALL), T., 1193; P., 134.

**$C_6H_5O_2Cl$** 6-Chloro-3-methyl-α-pyrone (THOLE and THORPE), T., 2225.

**$C_6H_5O_3N$** β-*p*-Nitrophenol, colour change in, produced by sunlight (BARKER), P., 158.

**$C_6H_6O_2N_2$** β-Glyoxaline-4(or 5)-acrylic acid, and its salts (BARGER and EWINS), T., 2339; P., 305.

$C_6H_6O_4N_2$ Malonylmalonamide, and its sodium salt (Remfry), T., 615; P., 73.

$C_6H_6NCl$ *p*-Chloroaniline, compound of, with antimony trichloride (May), T., 1384; P., 125.

$C_6H_7O_4N$ Imide of tricarballylic acid (Thole and Thorpe), T., 1688.

$C_6H_8OS$ Phenothioxin, synthesis of derivatives of (Hilditch and Smiles), T., 408; P., 44.

$C_6H_8O_2N_2$ 1-Methylglyoxaline-4-, and 5-acetic acids, and their picrates (Pyman), T., 2180.

$C_6H_8O_3N_2$ *r*-α-Hydroxy-β-glyoxaline-4(or 5)-propionic acid (Pyman), T., 1400.

$C_6H_9O_2N_3$ Histidine, synthesis and resolution of, into its optically active forms (Pyman), T., 1386, 1395; P., 92, 206; salts of (Ewins and Pyman), T., 342.

$C_6H_{10}ON_2$ 4(or 5)-Ethoxymethylglyoxaline, and its hydrogen oxalate (Pyman), T., 678.

$C_6H_{12}ON_6$ Semicarbazone of β-triazo-β-methylbutan-γ-one (Forster and van Gelderen), T., 241; P., 19.

$C_6H_{12}O_3N_2$ *iso*Butyl allophanate (Remfry), T., 624; P., 73.

$C_6H_{12}N_6S$ Thiosemicarbazone of β-triazo-β-methylbutan-γ-one (Forster and van Gelderen), T., 241; P., 19.

$C_6H_{13}O_5N$ Glucosamine, preparation of derivatives of (Irvine, McNicoll and Hynd), T., 250; P. 23.

$C_6H_{15}O_3B$ Mannitoboric acid, and its salts (Fox and Gauge), T., 1075; P., 136.

## 6 IV

$C_6H_2O_3I_4S$ 2:3:4:5-Tetraiodobenzenesulphonic acid, salts of (Boyle), T., 333; P., 10.

$C_6H_3O_3NCl_2$ Dichloro-3(or 5)-hydroxypicolinic acid (Sell), T., 1681; P., 221.

3:5-Dichloro-4-hydroxypicolinic acid (+ $2H_2O$) (Sell), T., 1682; P., 221.

$C_6H_4O_2N_2Cl_2$ 3:5-Dichloro-4-aminopicolinic acid, (and + $H_2O$) (Sell), T., 1683; P., 221.

$C_6H_4O_3I_2S$ 2:3-Di-iodobenzenesulphonic acid, and its salts (Boyle), T., 332; P., 9.

$C_6H_5O_2N_2S$ β-2-Thiolglyoxaline-4-acrylic acid (Barger and Ewins), T., 2338; P., 305.

$C_6H_6O_5NSb$ *m*-Nitrophenylstibinic acid (Morgan and Micklethwait), T., 2295; P., 274.

$C_6H_6O_5N_2S$ *p*-Nitroaniline-*o*-sulphonic acid, and its barium salts (Boyle), T., 329.

$C_6H_7O_3N_2Cl$ *r*-α-Chloro-β-glyoxaline-4(or 5)-propionic acid (Pyman), T., 1394; P., 92.

## 6 V

$C_6HO_2ClI_4S$ 2:3:4:5-Tetraiodobenzenesulphonyl chloride (Boyle), T., 333; P., 10.

$C_6H_3O_2ClI_2S$ 2:3-Di-iodobenzenesulphonyl chloride (Boyle), T., 332; P., 10.

$C_6H_3O_5NI_2S$ 2:3-Di-iodo-5-nitrobenzenesulphonic acid, and its salts (Boyle), T., 330.

$C_6H_4O_5NIS$ 2-Iodo-4-nitrobenzenesulphonic acid, potassium salt (Boyle), T., 330.

$C_6H_5O_3NI_2S$ 4:5-Di-iodoaniline-*m*-sulphonic acid (Boyle), T., 331.

$C_6H_5O_5N_2IS$ 2-Iodo-4-nitroaniline-*o*-sulphonic acid, and its salts (Boyle), T., 330.

## $C_7$ Group.

$C_7H_8$ Toluene, absorption spectra of chlorine and bromine derivatives of (PURVIS), T., 1699; P., 218; absorption spectra of iodine derivatives of (PURVIS), T., 2318; P., 280.

### 7 II

$C_7H_6O_2$ Benzoic acid, copper salt, compounds of, with pyridine and quinoline (BRADY), P., 94.

$C_7H_7Cl$ *o*-, *m*-, and *p*-Chlorotoluene, absorption spectra of (BALY), T., 856; P., 72.

$C_7H_8O_3$ $\alpha\gamma$-Dimethylglutaconic anhydride (THOLE and THORPE), T., 2235.

*cis*-$\alpha$-Ethylglutaconic anhydride (THOLE and THORPE), T., 2226.

6-Hydroxy-3:4- and 3:5-dimethylpyrone (THOLE and THORPE), T., 2234.

6-Hydroxy-3-ethyl-$\alpha$-pyrone (THOLE and THORPE), T., 2227.

$C_7H_8O_4$ $\omega$-Methoxymethylpyromucic acid (COOPER and NUTTALL), T., 1199; P., 134.

$C_7H_9N$ *o*- and *p*-Toluidine, compounds of, with antimony trichloride (MAY), T., 1384; P., 125.

Benzylamine, action of, on *s*-dibromosuccinic acid (FRANKLAND), T., 1775; P., 206; salts of (HILDITCH), T., 237; nitrite of (RÂY and DATTA), T., 1475; P., 127.

$C_7H_{10}O_2$ 3:4-Diketo-1:1-dimethyl*cyclo*pentane (BLANC and THORPE), T., 2012.

$C_7H_{10}O_3$ 1-Methyl*cyclo*pentan-4-one-2-carboxylic acid (HOPE and PERKIN), T., 769.

1-Methyl*cyclo*pentan-2-one-4-carboxylic acid (HOPE and PERKIN), T., 774.

$C_7H_{10}O_4$ $\alpha\gamma$-Dimethylglutaconic acid, and its silver salt (THOLE and THORPE), T., 2204.

*cis*-$\alpha$-Ethylglutaconic acid, and its silver salt (THOLE and THORPE), T., 2225.

$C_7H_{11}Br$ 4-Bromo-1-methyl-$\Delta^1$-*cyclo*hexene (PERKIN), T., 760.

$C_7H_{11}Br_3$ 1:2:4-Tribromo-1-methyl*cyclo*hexane (PERKIN), T., 761.

$C_7H_{12}O_4$ $\alpha$-Methyladipic acid, and its silver salt (HAWORTH, PERKIN and WALLACH), T., 130.

$\beta\beta$-Dimethylglutaric acid, preparation of (THOLE and THORPE), T., 434.

thyl malonate, sodium derivative, condensation of, with ethyl citraconate (HOPE), P., 281.

*as*-Methylethylsuccinic acid, synthesis and resolution of (INGLIS), T., 544; P., 46.

$C_7H_{12}O_6$ Quinic acid, cupric salts of (PICKERING), T., 177; P., 7.

$C_7H_{12}Br_2$ 1:4 Dibromo-1-methyl*cyclo*hexane (PERKIN), T., 761.

$C_7H_{13}N_3$ 4 (or 5)-$\gamma$-Aminobutylglyoxaline, and its picrate (PYMAN), T., 2177; P., 275.

$C_7H_{16}O$ *d*- and *l*-Methyl-*n*-amylcarbinols, and their derivatives (PICKARD and KENYON), T., 60, 61, 65.

Triethylcarbinol (DAVIES and KIPPING), T., 298.

Propyl*iso*propylcarbinol, rotation of (PICKARD and KENYON), P., 324.

### 7 III

$C_7H_5O_2N_3$ 4-Cyano-2:5-diketo-4-cyanomethylpyrrolidine (THOLE and THORPE), T., 1687.

$C_7H_5O_6N_3$ *s*-Trinitrotoluene, additive compounds of phenolic ethers with (SUDBOROUGH and BEARD), T., 215; P., 5.

$C_7H_6ON_4$ 2-Imino-4-cyano-4-cyanomethyl-5-pyrrolidone (THOLE and THORPE), T., 1687.

$C_7H_6O_4N_2$ Substance, from condensation of nitromethane and 5-nitrosalicylaldehyde (REMFRY), T., 287.

$C_7H_6O_6N_2$ 3:5-Dinitroquinol 1-monomethyl ether, and its metallic salts (SHAW), T., 1613; P., 98.

$C_7H_7O_2N$ Salicylamide, condensation of, with acetyl chloride (TITHERLEY and HICKS), T., 866; P., 102.

$C_7H_7O_2Cl$ 6-Chloro-3:4- and 3:5-dimethyl-α-pyrone (THOLE and THORPE), T., 2235.

6-Chloro-3-ethyl-α-pyrone (THOLE and THORPE), T., 2227.

$C_7H_8O_4N_2$ 4(or 5)-Glyoxalinemethylmalonic acid (PYMAN), T., 1391.

$C_7H_{10}ON_2$ 4(or 5)-Glyoxaline-ethyl methyl ketone (PYMAN), T., 2176; P., 275.

$C_7H_{10}O_2N_2$ Ethyl glyoxaline-4(or 5)-acetate, and its salts (PYMAN), T., 681.

4:6-Diketo-5-methyl-2-ethyltetrahydropyrimidine (REMFRY), T., 620.

$C_7H_{10}O_3Cl_2$ αβ-Dichloro-α′-acetoacetin (ALPERN and WEIZMANN), T., 86.

$C_7H_{11}ON_3$ 4(or 5)-γ-Oximinobutylglyoxaline, and its picrate (PYMAN), T., 2176.

$C_7H_{11}O_3N$ Oxime of 1-methyl*cyclo*pentan-4-one-2-carboxylic acid (HOPE and PERKIN), T., 769.

Oxime of 1-methyl*cyclo*pentan-2-one-4-carboxylic acid (HOPE and PERKIN), T., 774.

Oxime of *cyclo*hexanone-4-carboxylic acid, molecular configuration of (EVEREST), P., 285.

$C_7H_{15}O_5N$ Methylglucosamine, hydrochloride of (IRVINE, MCNICOLL and HYND), T, 260; P., 23.

## 7 IV

$C_7H_6O_3I_2S$ Methyl 2:3-di-iodobenzenesulphonate (BOYLE), T., 332; P., 10.

$C_7H_8ONCl$ 5-Chloro-*o*-anisidine (ORTON and KING), T., 1190.

$C_7H_9O_2N_4Cl$ 4(or 5)-Glyoxalinemethylchloromalonamide, hydrochloride of (PYMAN), T., 1401.

# $C_8$ Group.

$C_8H_{10}$ *o*-Xylene, derivatives of (CROSSLEY and WREN), T., 2341; P., 307; (CROSSLEY and MORRELL), T., 2345; P., 307.

$C_8H_{14}$ 4-Methylene-1-methyl*cyclo*hexane, preparation of (PERKIN and POPE), T., 1514.

$C_8H_{18}$ Octane, halogen derivatives of (PICKARD and KENYON), T., 69.

## 8 II

$C_8H_6O_2$ Phthalic acid, brucine salts of (PICKARD and KENYON), T., 60.

Coumaranone, preparation of derivatives of (MERRIMAN), T., 911; P., 101.

$C_8H_6O_3$ Phenylglyoxylic acid, brucine salt of (HILDITCH), T., 235.

*p*-Methoxysalicylaldehyde, occurrence of, in a species of *Chlorocodon* (GOULDING and PELLY), P., 235.

$C_8H_9Cl$ *l*-α-Chloroethylbenzene (PICKARD and KENYON), T., 71.

$C_8H_{10}O$ *d*-Phenylmethylcarbinol, and its derivatives (PICKARD and KENYON), T., 60.

$C_8H_{10}O_2$ $\Delta^{2:4}$-Dihydro-*o*-toluic acid (PERKIN), T., 758.

$C_8H_{10}O_3$ αβγ-Trimethylglutaconic anhydride (THOLE and THORPE), T., 2239.

6-Hydroxy-3:4:5-trimethyl-α-pyrone (THOLE and THORPE), T., 2240.

*w*-Ethoxymethylfurfuraldehyde (COOPER and NUTTALL), T., 1197; P., 134.

$C_8H_{10}O_4$ ω-Ethoxymethylpyromucic acid, and its silver salt (COOPER and NUTTALL), T., 1198.

$C_8H_{10}O_6$ Diacetyltartaric acid, conductivity and dissociation of (DEAKIN and RIVETT), P., 316.

$C_8H_{10}N_2$ Acetaldehydephenylhydrazones, isomeric (LAWS and SIDGWICK), T., 2085; P., 263.

$C_8H_{12}O_2$ 3:4-Diketo-1:1:2-trimethyl*cyclo*pentane (BLANC and THORPE), T., 2011.
*cis*- and *trans*-1-Methyl-$\Delta^3$-*cyclo*hexene-2-carboxylic acids (PERKIN), T., 750.
1-Methyl-$\Delta^4$-*cyclo*hexene-2-carboxylic acid (PERKIN), T., 754.
1-Methyl-$\Delta^5$-*cyclo*hexene-2-carboxylic acid (PERKIN) T., 734; P., 95.
1-Methyl-$\Delta^6$-*cyclo*hexene-2-carboxylic acid (PERKIN), T., 738.
*dl*-1-Methyl-$\Delta^3$-*cyclo*hexene-3-carboxylic acid, resolution of, into its optically active components (LUFF and PERKIN), T., 521; P., 57.
*d*-1-Methyl-$\Delta^3$-*cyclo*hexene-4-carboxylic acid (CHOU and PERKIN), T., 533; P., 57.
Substance, from condensation of crotonaldehyde (SMEDLEY), T., 1631.
$C_8H_{12}O_3$ $\beta\beta$-Methylethylglutaric anhydride (THOLE and THORPE), T., 440.
Acid, from condensation of crotonaldehyde, and its barium salt (SMEDLEY), T., 1632.
$C_8H_{12}O_4$ $\alpha$-Methyl-$\gamma$-ethylglutaconic acid, and its sodium salt (THOLE and THORPE), T., 2206.
$C_8H_{12}O_6$ Pentane-$\alpha\beta\delta$-tricarboxylic acid (HOPE and PERKIN), T., 774; P., 95.
$\gamma$-Methylbutane-$\alpha\beta\delta$-tricarboxylic acid (HOPE and PERKIN), T., 767; P., 96.
$C_8H_{13}Br$ *d*- and *l*-1-Methyl-4-bromomethylene*cyclo*hexane, rotatory power of (PERKIN and POPE), T., 1523.
$C_8H_{14}O_2$ *cis*- and *trans*-1-Methyl*cyclo*hexan-4-carboxylic acids (CHOU and PERKIN), T., 536.
Substance, from condensation of crotonaldehyde (SMEDLEY), T., 1632.
$C_8H_{14}O_3$ *dl*-1-Methyl*cyclo*hexan-3-ol-4-carboxylic acid, preparation of (CHOU and PERKIN), T., 531.
$C_8H_{14}O_4$ Methyl diethylmalonate, condensation of, with malonamide (REMFRY), T., 619.
$\beta\beta$-Methylethylglutaric acid (THOLE and THORPE), T., 440.
$C_8H_{14}Br_2$ 4-Bromo-4-bromomethyl-1-methyl*cyclo*hexane (PERKIN and POPE), T., 1523.
$C_8H_{16}O$ *n*-Octaldehyde, sodium hydrogen sulphite compound of (PICKARD and KENYON), T., 56.
$C_8H_{18}O$ *d*-Methyl-*n*-hexylcarbinol, and its derivatives (PICKARD and KENYON), T., 61.
$C_8H_{18}O_2$ $\beta$-Methyl-$\gamma$-ethylpentane-$\beta\gamma$-diol (PARRY), T., 1171; P., 141.

## 8 III

$C_8H_5O_6N$ 5-Nitro-3-aldehydosalicylic acid (REMFRY) T., 286; P., 21.
3-Nitro-5-aldehydosalicylic acid (REMFRY), T., 287; P., 21.
$C_8H_6O_5N_2$ $\omega$-3-Dinitro-2-hydroxystyrene (REMFRY), T., 286; P., 21.
$C_8H_6O_6N_6$ 2:5-Dinitro-4-acetylamino-3-triazophenol (MELDOLA and KUNTZEN), T., 43.
$C_8H_7ON$ Benzaldehydecyanohydrin, action of heat on a mixture of, and aniline (EVEREST and MCCOMBIE), T., 1752; P., 218.
$C_8H_7O_3N$ $\omega$-Nitro-*o*-, *m*- and *p*-hydroxystyrene (REMFRY), T., 286; P., 21.
$C_8H_7O_3Br$ 5-Bromo-6-hydroxy-*m*-toluic acid (MOIR), P., 227.
$C_8H_7O_7N_5$ 2:3:6-Trinitro-*p*-tolylmethylnitrosoamine (MORGAN and CLAYTON), T., 1942.
$C_8H_8O_4N_2$ 3:6-Dinitro-*o*-xylene (CROSSLEY and WREN), T., 2343; P., 307.
4:6-Dinit o-*o*-xylene (CROSSLEY and MORRELL), T., 2349.
$C_8H_8O_5N_4$ 2:5-Dinitro-*p*-tolylmethylnitrosoamine (MORGAN and CLAYTON), T., 1943.
$C_8H_9OCl$ 5-Chloro-*m*-xylenol, preparation of (ORTON and KING), T., 1191.
$C_8H_9O_2N$ 3-Nitro-*o*-xylene (CROSSLEY and WREN), T., 2342; P., 307.
Anis*syn*aldoxime, transformation of, in various solvents (PATTERSON and MONTGOMERIE), P., 276.

$C_8H_9O_4N_3$ 4:5-, 4:6-, and 5:6-Dinitro-*o*-3-xylidines (Crossley and Morrell), T., 2349; P., 307.

3:4(5:6)-, and 3:5-Dinitro-*o*-4-xylidine (Crossley and Morrell), T., 2350; P., 307.

$C_8H_9O_5N$ β-Nitro-α-2:5-trihydroxyphenylethane (Remfry), T., 287.

$C_8H_{10}ON_2$ α-Amino-α-phenylacetamide, and its ethyl hydrogen oxalate (Clarke and Francis), T., 320; P., 22.

$C_8H_{10}O_2N_2$ 3-Cyano-2:6-diketo-4:4-dimethylpiperidine (Thole and Thorpe), T., 432.

$C_8H_{10}O_2Br_2$ 2:5-Dibromo-1-methyl-$\Delta^3$-*cyclo*hexene-2-carboxylic acid (Perkin), T., 759.

$C_8H_{10}O_4N_2$ Dimethylmalonylmalonamide (Remfry), T., 616.

$C_8H_{10}NCl$ 5-Chloro-*m*-xylidine (Orton and King), T., 1188.

$C_8H_{12}O_2N_2$ Ethyl 1-methylglyoxaline-4-acetate, and its picrate (Pyman), T., 2181.

4:6-Diketo-2-methyl-5-propyltetrahydropyrimidine (Remfry), T., 620.

$C_8H_{12}O_2Br_2$ 1:6-Dibromo-1-methyl*cyclo*hexane-2-carboxylic acid (Perkin), T., 738.

*trans*-3:4- and 1:4-Dibromo-1-methyl*cyclo*hexane-2-carboxylic acid (Perkin), T., 750, 760.

4:5-Dibromo-1-methyl*cyclo*hexane-2-carboxylic acid (Perkin), T., 755.

*d*-3:4-Dibromo-1-methyl*cyclo*hexane-3-carboxylic acid (Luff and Perkin), T., 523.

*d*-3-4-Dibromo-1-methyl*cyclo*hexane-4-carboxylic acid (Chou and Perkin), T., 535.

$C_8H_{13}O_2N$ ββ-Methylethylglutarimide, and its silver salt (Thole and Thorpe), T., 439.

$C_8H_{13}O_2Br$ *trans*-4-Bromo-1-methyl*cyclo*hexane-2-carboxylic acid (Perkin), T., 750.

5-Bromo-1-methyl*cyclo*hexane-2-carboxylic acid (Perkin), T., 755.

*d*-3-Bromo-1-methyl*cyclo*hexane-4-carboxylic acid (Chou and Perkin), T., 534.

$C_8H_{13}O_3N_3$ Semicarbazone of 1-methyl*cyclo*pentan-4-one-2-carboxylic acid (Hope and Perkin), T., 769.

Semicarbazone of 1-methyl*cyclo*pentan-2-one-4-carboxylic acid (Hope and Perkin), T., 775.

$C_8H_{13}O_4Cl$ Ethyl *d*-chlorosuccinate (McKenzie and Barrow), T., 1919.

$C_8H_{13}Cl_2Br$ *d*-4-Chloro-1-methyl-4-chlorobromomethyl*cyclo*hexane (Perkin and Pope), T., 1528.

$C_8H_{14}O_2N_2$ Dioxime of 3:4-diketo-1:1:2-trimethyl*cyclo*pentane (Blanc and Thorpe), T., 2012.

## 8 IV

$C_8H_6O_2NCl$ *p*-Chloro-ω-nitrostyrene (Remfry), T., 286; P., 21.

$C_8H_8O_3I_2S$ Ethyl 2:3-di-iodobenzenesulphonate (Boyle), T., 332; P., 10.

$C_8H_{10}ONCl$ 5-Chloro-*o*- and *p*-phenetidine (Orton and King), T., 1190.

# $C_9$ Group.

$C_9H_{16}$ *l*-1-Methyl-3-ethylidene*cyclo*hexane (Haworth, Perkin and Wallach), T., 127.

$C_9H_{20}$ Nonane, γ-halogen derivatives of (Pickard and Kenyon), T., 71.

## 9 II

$C_9H_6O_4$ Triketohydrindene hydrate (Ruhemann), T., 1306, 1486; P., 163, 210; absorption spectra of, and of its derivatives (Purvis), T., 1953; P., 242; relation to alloxan (Ruhemann), T., 792; P., 97.

**$C_9H_7N$** Quinoline, and its methiodide, absorption spectra of (DOBBIE and LAUDER), T., 1254; compound of copper benzoate and (BRADY), P., 94; salts of (HILDITCH), T., 236; methonitrite of (NEOGI), T., 1601; P., 208.

**$C_9H_8O$** β-Hydrindone, preparation of (THORPE), P., 128.

**$C_9H_8O_3$** Benzylacetic acid, brucine salt of (HILDITCH), T., 235.

Phenylpyruvic acid, brucine salt of (HILDITCH), T., 235.

**$C_9H_8O_5$** Cyanomyristicinic acid (SALWAY), T., 269.

β- and γ- Coccinic acids, synthesis of derivatives of (MELDRUM), T., 1712; P., 216.

**$C_9H_9N_5$** αβ-Bis[4(or 5)-glyoxaline]-propionitrile, salts of (PYMAN), T., 677.

**$C_9H_{10}O_3$** *o*-Veratraldehyde, derivatives of (PERKIN, ROBERTS and ROBINSON), P., 57.

**$C_9H_{10}O_4$** *o*-Veratric acid (PERKIN, ROBERTS and ROBINSON), P., 57.

6-Acetoxy-3:4-dimethyl-α-pyrone (THOLE and THORPE), T., 2234.

**$C_9H_{11}Cl$** *d*-α-Chloropropylbenzene (PICKARD and KENYON), T., 71.

6-Chloro-ψ-cumene (ORTON and KING), T., 1189.

**$C_9H_{12}O$** Phenylethylcarbinol (DAVIES and KIPPING), T., 298.

*dl*-, *d*-, and *l*-Phenylethylcarbinols, rotation and derivatives of (PICKARD and KENYON), T., 59, 60, 71.

**$C_9H_{12}O_3$** 5-Methoxy-*m*-toluic acid (MELDRUM), T., 1716.

**$C_9H_{12}O_4$** 3:4-Diketo-1:1:2-trimethyl*cyclo*pentane-5(or 2)-carboxylic acid (BLANC and THORPE), T., 2011.

**$C_9H_{13}N$** Dimethyl-*p*-toluidine, absorption spectra of the nitration products of (MORGAN and CLAYTON), T., 1941; P., 233.

**$C_9H_{13}N_5$** βγ-Bis[4(or 5)-glyoxaline]propylamine, and its salts (PYMAN), T., 2178; P., 275.

**$C_9H_{14}O$** *d*-3-Acetyl-1-methyl-$\Delta^2$-*cyclo*hexene (HAWORTH, PERKIN and WALLACH), T., 129.

**$C_9H_{14}O_2$** 1-Methyl*cyclo*hexylidene-4-acetic acid, molecular configuration of (EVEREST), P., 285; optically active derivatives of (PERKIN and POPE), T., 1510; P., 212.

*d*-1-Methyl*cyclo*hexylidene-4-acetic acid, rotatory power of (PERKIN and POPE), T., 1525.

**$C_9H_{14}O_3$** Ethyl 1-methyl*cyclo*pentan-4-one-2-carboxylate (HOPE and PERKIN), T., 769.

Ethyl 1-methyl*cyclo*pentan-2-one-4-carboxylate (HOPE and PERKIN), T., 775.

**$C_9H_{14}O_4$** Ethyl citraconate, condensation of, with ethyl sodiomalonate (HOPE), P., 281.

**$C_9H_{16}O$** 1:1:2-Trimethyl*cyclo*hexan-3-one (CROSSLEY and RENOUF), T., 1110.

Alcohol, and its phthalate from oxidation of camphene (HENDERSON and SUTHERLAND), T., 1549; P., 212.

**$C_9H_{16}O_2$** Substance, from oxidation of camphene (HENDERSON and SUTHERLAND), T., 1548; P., 212.

**$C_9H_{16}O_3$** δ-Acetyl-δ-methylhexoic acid, and its silver salt (CROSSLEY and RENOUF), T., 1111.

Ethyl 1-methyl*cyclo*pentan-4-ol-2-carboxylate (HOPE and PERKIN), T., 770.

**$C_9H_{16}O_4$** Ethyl diethylmalonate, condensation of, with malonamide (REMFRY), T., 619.

**$C_9H_{16}O_5$** αα′-Dipropionin (ALPERN and WEIZMANN), T., 85.

**$C_9H_{18}O$** Trimethyl*cyclo*hexanol (CROSSLEY and RENOUF), T., 1108.

1:1:2-Trimethyl*cyclo*hexan-3-ol (CROSSLEY and RENOUF), T., 1109.

**$C_9H_{18}O_2$** 1-Methyl-3-α-hydroxyethyl*cyclo*hexan-3-ol (HAWORTH, PERKIN and WALLACH), T., 128.

$C_9H_{20}O$ *d*-Methyl-*n*-heptylcarbinol, and its derivatives (PICKARD and KENYON), T., 60, 70.

*a*- and *l*-Ethyl-*n*-hexylcarbinols, and their derivatives (PICKARD and KENYON), T., 60, 61.

*n*-Amyl*iso*propylcarbinol, rotation of (PICKARD and KENYON), P., 324.

## 9 III

$C_9H_4O_2N_2$ Coumarin-6-diazo-5-oxide (CLAYTON), P., 246.

$C_9H_6O_4N_2$ Nitro-6-aminocoumarin (CLAYTON), P., 245.

$C_9H_7ON$ 6-Hydroxyquinoline, absorption spectra of (DOBBIE and FOX), P., 325.

$C_9H_7O_2N$ 1:3-Diketohydrindamine (RUHEMANN), T., 1488; P., 210.

$C_9H_7O_2Cl$ *β*-Chlorocinnamic acids, isomeric (JAMES), T., 1620; P., 216.

$C_9H_7O_3N$ *ω*-Nitro-2-hydroxy-3-carboxystyrene (REMFRY), T., 286; P., 21.

$C_9H_7O_7N$ Nitromyristicinic acid, orientation of the nitro-group in (SALWAY), T., 266; P., 20.

$C_9H_8O_5N_2$ *ω*-3-Dinitro-4-methoxystyrene (REMFRY), T., 286; P., 21.

$C_9H_8O_8N_4$ 2:3:5-Trinitro-4-propionylaminophenol (MELDOLA and KUNTZEN), T., 2041.

$C_9H_9ON$ Dihydrocinnamenylcarbimide (*β-phenylethyl* isocyanate) (FORSTER and STÖTTER), T., 1337; P. 206.

$C_9H_9O_2N_3$ Ethyl *αββ'*-tricyano*iso*butyrate (THOLE and THORPE), T., 1689.

$C_9H_9O_2N_5$ *p*-Nitrobenzylidene-*β*-triazoethylamine (FORSTER and NEWMAN), T., 1280; P., 154.

$C_9H_9O_3Cl$ Methyl *l*-phenylchloroacetate (MCKENZIE and BARROW), T., 1917.

$C_9H_9O_4N$ Methyl anhydrocotarnine-*o*-nitro-*p*-toluate (HOPE and ROBINSON, T., 2125.

$C_9H_9O_5N$ Aminomyristicinic acid (SALWAY), T., 268.

$C_9H_9O_8N_3$ *β*-3:5-Trinitro-*α*-hydroxy-4-methoxy-*α*-phenylethane (REMFRY), T., 285; P., 21.

$C_9H_{10}ON_4$ Benzoyl-*β*-triazoethylamine (FORSTER and NEWMAN), T., 1279; P., 154.

$C_9H_{10}O_2N_4$ *αβ*-Bis[4(or 5)-glyoxaline]-propionic acid, and its dipicrate (PYMAN), T., 2178.

$C_9H_{10}O_4N_2$ Di-imide of *ββ*-dimethylpropane-*ααγγ*-tetracarboxylic acid (THOLE and THORPE), T., 436.

3-Cyano-2:6-diketo-4:4-dimethylpiperidine-5-carboxylic acid, and its salts (THOLE and THORPE), T., 432.

$C_9H_{10}O_6N_4$ 2:3:6-Trinitrodimethyl-*p*-toluidine (MORGAN and CLAYTON), T., 1942; P. 233.

$C_9H_{11}ON$ Hydroxyhydrindamine, and its salts (POPE and READ), T., 2079; P., 259.

$C_9H_{11}ON_5$ *δ*-Phenyl-*β*-triazoethylcarbamide (FORSTER and NEWMAN), T., 1281; P., 154.

$C_9H_{11}O_3N$ Damasceninic acid, synthesis of (EWINS), P., 277.

$C_9H_{11}O_3N_3$ 3-Cyano-2:6-diketo-4:4-dimethylpiperidine-5-carboxylamide, and its sodium salt (THOLE and THORPE), T., 431.

$C_9H_{11}O_4N$ *dl*-3:4-Dihydroxyphenylalanine (FUNK), T., 557; P., 56.

$C_9H_{11}O_6N$ Imide of *ββ*-dimethylpropane-*ααγγ*-tetracarboxylic acid (THOLE and THORPE), T., 433.

$C_9H_{11}O_6Cl_3$ Trichlorotriacetin (ALPERN and WEIZMANN), T., 84.

$C_9H_{11}O_7N_5$ 2:4:6:2':4':5':6'-Heptahydroxy-5-methyleneamino-4:5:4':5'-tetrahydro-4:4'-dipyrimidyl (+ $H_2O$) (HURTLEY and WOOTTON), T., 295; P., 2.

**$C_9H_{11}N_5S$** *s*-Phenyl-β-triazoethylthiocarbamide (FORSTER and NEWMAN), T., 1281 ; P., 154.

**$C_9H_{12}O_2N_4$** Di-imino-di-imide of ββ-dimethylpropane-αaγγ-tetracarboxylic acid, and its salts (THOLE and THORPE), T., 435.

α-Amino-α-*p*-methoxyphenylacetamide (CLARKE and FRANCIS), T., 323.

6-Imino-3-cyano-5-carbamyl-4:4-dimethyl-2-piperidone, and its platinichloride (THOLE and THORPE), T., 430.

**$C_9H_{12}O_4N_2$** Methylethylmalonylmalonamide (REMFRY), T., 616.

Propylmalonylmalonamide (REMFRY), T., 619.

Dimethylmalonylmethylmalonamide (REMFRY), T., 617.

**$C_9H_{12}O_5N_2$** Ethyl 2:5-diketo-3-carbamylmethylpyrrolidine-3-carboxylate (SELL), T., 1689.

**$C_9H_{12}O_6N_6$** Amide of 2:4:6:2′:4′:5′:6′-heptahydroxy-5-methyleneamino-4:5:4′:5′-tetrahydro-4:4′-dipyrimidyl (HURTLEY and WOOTTON), T., 296.

**$C_9H_{12}NCl$** 6-Chloro-ψ-cumidine (ORTON and KING), T., 1189.

**$C_9H_{13}OCl$** Chlorotrimethyl*cyclo*hexenone (CROSSLEY and RENOUF), T., 1106.

**$C_9H_{13}O_2N$** α-*d*-Hydroxy-*m*-methoxyphenylethylamine, and its hydrochloride (MOORE), T., 418 ; P., 42.

**$C_9H_{13}O_2Br$** *d*- and *l*-1-Methyl*cyclo*hexylidene-4-bromoacetic acid (PERKIN and POPE), T., 1524.

**$C_9H_{13}O_4N_3$** Ethyl 2-imino-3-carbamylmethyl-5-pyrrolidone-3-carboxylate (THOLE and THORPE), T., 1688.

**$C_9H_{14}OSi$** Phenylmethylethylsilicol (KIPPING and HACKFORD), T., 141 ; P., 9.

**$C_9H_{14}O_2N_2$** 4:6-Diketo-5-ethyl-2-propyltetrahydropyrimidine (REMFRY), T., 620.

**$C_9H_{14}O_2Br_2$** α- and β-4-Dibromo-*dl*-, *d*-, and *l*-methyl*cyclo*hexyl-4-acetic acids (PERKIN and POPE), T., 1518.

**$C_9H_{15}ON$** Oxime of *d*-3-acetyl-1-methyl-$\Delta^2$-*cyclo*hexene (HAWORTH, PERKIN and WALLACH), T. 128.

**$C_9H_{15}O_2N_3$** β-Glyoxaline-4(or 5)-propiobetaine, and its salts (BARGER and EWINS), T., 2340 ; P., 305.

**$C_9H_{15}O_2Br$** Ethyl 4-bromo-1-methyl*cyclo*pentane-2-carboxylate (HOPE and PERKIN), T., 771.

4-Bromo-1-methyl*cyclo*hexyl-4-acetic acid, preparation of (PERKIN and POPE), T., 1513.

**$C_9H_{17}ON$** 1:1:2-Trimethyl*cyclo*hexan-3-oneoxime (CROSSLEY and RENOUF), T., 1110.

**$C_9H_{17}O_3N$** δ-Acetyl-δ-methylhexoic acid oxime (CROSSLEY and RENOUF), T., 1111.

**$C_9H_{17}O_5N$** Glucosealanide (IRVINE and HYND), T., 166 ; P., 9.

## 9 IV

**$C_9H_9ONCl$** β-Chlorocinnamides, isomeric (JAMES), T., 1626.

**$C_9H_{10}O_2NCl$** 5-Chloroaceto-*o*-anisidide (ORTON and KING), T., 1190.

**$C_9H_{12}O_2N_4S$** *p*-Toluene-β-triazoethylsulphonamide (FORSTER and NEWMAN), T., 1280 ; P., 154.

**$C_9H_{13}O_2Cl_2Br$** *l*-4-Chloro-1-methyl*cyclo*hexyl-4-chlorobromoacetic acid (PERKIN and POPE), T., 1527.

**$C_9H_{14}ONCl$** Chlorotrimethyl*cyclo*hexenoneoxime (CROSSLEY and RENOUF), T., 1107.

**$C_9H_{15}O_2N_3S$** Ergothioneine, constitution of (BARGER and EWINS), T., 2336 ; P., 305.

$C_9H_{16}ONCl$ Nitroso-chloride of 1:1-methyl-3-ethylidene*cyclo*hexane (HAWORTH, PERKIN and WALLACH), T., 127.

$C_9H_{16}OClBr$ α-Bromo-*n*-nonoylchloride (HOPWOOD and WEIZMANN), T., 1577; P., 214.

## $C_{10}$ Group.

$C_{10}H_{16}$ 1:3-Diethyl*cyclo*hexadiene (HENDERSON and BOYD), T., 2164; P., 277.

Bornylene, oxidation of, and its compound with chromyl chloride (HENDERSON and HEILBRON), T., 1887; P., 248.

Camphene, constitution of (HENDERSON and HEILBRON), T., 1901; P., 249; oxidation of (HENDERSON and SUTHERLAND), T., 1541; P., 211, 278.

$\Delta^{2:4}$-Menthadiene (HENDERSON and BOYD), T., 2161; P., 277.

*cis*- and *trans*-$\Delta^{3:8(9)}$-*o*-Menthadiene (PERKIN), T., 751; P., 95.

$\Delta^{4:8(9)}$-*o*-Menthadiene (PERKIN), T., 757; P., 95.

$\Delta^{5:8(9)}$-*o*-Menthadiene (PERKIN), T., 737; P., 95.

$\Delta^{6:8(9)}$-*o*-Menthadiene (PERKIN), T., 740; P., 95.

*dl*- and *d*-$\Delta^{2:8(9)}$-*m*-Menthadiene, synthesis of, and the dihydrochloride of the latter (HAWORTH, PERKIN and WALLACH), T., 126, 130; P., 4.

*d*- and *l*-$\Delta^{3:8(9)}$-*m*-Menthadiene (LUFF and PERKIN), T., 525; P., 57.

*d*-$\Delta^{3:8(9)}$-*p*-Menthadiene (CHOU and PERKIN), T., 537; P., 57.

$C_{10}H_{18}$ 1:3-Diethyl*cyclo*hexene (HENDERSON and BOYD), T., 2163; P., 277.

### 10 II

$C_{10}H_8O$ α-Naphthol, chlorination of (KING), P., 266.

$C_{10}H_8O_2$ 6-Methylcoumarin (CLAYTON), P., 246.

$C_{10}H_8O_4$ Benzoylpyruvic acid, brucine salt of (HILDITCH), T., 236.

5-Methoxy-3-methylphthalic anhydride (MELDRUM), T., 1719.

3-Methoxy-5-methylphthalic anhydride (MELDRUM), T., 1721.

Scopoletin, constitution of (MOORE), T., 1043; P., 119.

$C_{10}H_8O_7$ Cochenillic acid, synthesis of derivatives of (MELDRUM), T., 1712; P., 216.

$C_{10}H_9N$ α- and β-Naphthylamine, salts of (HILDITCH), T., 236; preparation of derivatives of (LE SUEUR), T., 827; P., 104.

2-Methylquinoline (*quinaldine*), mechanism of the synthesis of (JONES and EVANS), T., 334; P., 43.

$C_{10}H_{10}O_2$ *d*-β-Octyl acetate (PICKARD and KENYON), T., 66.

$C_{10}H_{10}O_3$ β-Benzoylpropionic acid, brucine salt of (HILDITCH), T., 236.

Benzylpyruvic acid, brucine salt of (HILDITCH), T., 235.

5-Methoxy-3-methylphthalide (MELDRUM), T., 1718.

3-Methoxy-5-methylphthalide (MELDRUM), T., 1720.

$C_{10}H_{10}O_4$ Methyl 3:4-dihydroxycinnamate (POWER and ROGERSON), P., 304.

Ethyl 3- and 5-aldehydosalicylates (REMFRY), T., 286; P., 21.

Lactone of 2:4-dihydroxy-5-methoxy-β-phenylpropionic acid (MOORE), T., 1047; P., 119.

$C_{10}H_{10}O_5$ 2:4-Dihydroxy-5-methoxycinnamic acid (MOORE), T., 1046; P., 119.

5-Methoxy-3-methylphthalic acid (MELDRUM), T., 1718.

3-Methoxy-5-methylphthalic acid (MELDRUM), T., 1720.

$C_{10}H_{12}O$ Phenyl *iso*propyl ketone, preparation and properties of (LAPWORTH and STEELE), T., 1882; P., 239.

$C_{10}H_{12}O_3$ Methyl 5-methoxy-*m*-toluate (MELDRUM), T., 1716.

$C_{10}H_{12}O_5$ 2:4-Dihydroxy-5-methoxy-β-phenylpropionic acid (+ $H_2O$) (MOORE), T., 1047; P., 119.

Pyrogallolcarboxylic acid trimethyl ether, action of nitric acid on (HARDING), T., 1597; P., 213.

Gallic acid trimethyl ether, action of nitric acid on (HARDING), T., 1592; P., 213.

$C_{10}H_{12}N_2$ 3-β-Aminoethylindole, and its salts (EWINS), T., 270; P., 20.

$C_{10}H_{14}O_2$ Camphorquinone, absorption spectra of derivatives of (LANKSHEAR and LAPWORTH), T., 1785; P., 224.

Acid, and its sodium salt from bromo*iso*camphenilanic acid (HENDERSON and (HEILBRON), T., 1894; P., 249.

$C_{10}H_{14}O_3$ *cyclo*Hexane-1:1-diacetic anhydride (THOLE and THORPE), T., 446.

$C_{10}H_{14}O_4$ Trimethyldihydroresorcincarboxylic acid (CROSSLEY and RENOUF), T., 1106.

$C_{10}H_{16}O$ Camphor, α′-derivatives of (MARSH), P., 283.

Epicamphor (LANKSHEAR and PERKIN), P., 166.

*iso*Camphenilanaldehyde (HENDERSON and SUTHERLAND), T., 1546; P., 211.

$C_{10}H_{16}O_2$ Ethyl 1-methyl-$\Delta^4$-*cyclo*hexene-2-carboxylate (PERKIN), T., 754.

Ethyl 1-methyl-$\Delta^5$-*cyclo*hexene-2-carboxylate (PERKIN), T., 735; P., 95.

Ethyl *d*- and *l*-1-methyl-$\Delta^3$-*cyclo*hexene-3-carboxylate (LUFF and PERKIN), T., 523.

Ethyl *d*-1-methyl-$\Delta^3$-*cyclo*hexene-4-carboxylate (CHOU and PERKIN), T., 534.

Camphenanic acid, and its salts (HENDERSON and SUTHERLAND), T., 1543; P., 211, 278.

$C_{10}H_{16}O_3$ Hydroxycamphenanic acid (HENDERSON and SUTHERLAND), T., 1545; P., 211, 278.

$C_{10}H_{16}O_4$ Ethyl αγ-dimethylglutaconate (THOLE and THORPE), T., 2203.

Lactone of β-methyl-γ-hydroxy*iso*propyladipic acid (PERKIN), T., 758.

*cyclo*Hexane-1:1-diacetic acid, and its salts (THOLE and THORPE), T., 445.

Camphoric acid, synthesis of (KOMPPA), T., 29; (BLANC and THORPE), T., 2010; P., 265; salts of (HILDITCH), T., 236.

$C_{10}H_{18}O$ *cis*- and *trans*-$\Delta^3$-*o*-Menthenol(8) (PERKIN), T., 751; P., 95.

$\Delta^4$-*o*-Menthenol(8) (PERKIN), T., 756; P., 95.

$\Delta^5$-*o*-Menthenol(8) (PERKIN), T., 736; P., 95.

$\Delta^6$-*o*-Menthenol(8) (PERKIN), T., 740; P., 95.

*d*-, and *l*-$\Delta^3$-*m*-Menthenol(8) (LUFF and PERKIN), T., 525; P., 57.

*dl*- and *d*-$\Delta^2$-*m*-Menthenol(8), synthesis of (HAWORTH, PERKIN and WALLACH), T., 125, 129; P., 4.

*d*-$\Delta^3$-*p*-Menthenol(8) (CHOU and PERKIN), T., 537; P., 57.

$C_{10}H_{18}O_3$ Ethyl *d*-1-methyl*cyclo*hexan-3-ol-4-carboxylate (CHOU and PERKIN), T., 532.

1-Methyl*cyclo*hexan-3-ol-3-α-propionic acid, and its silver salt (HAWORTH, PERKIN, and WALLACH), T., 126.

$C_{10}H_{18}Br_2$ 1:3-Diethyl*cyclo*hexene dibromide (HENDERSON and BOYD), T., 2163; P., 277.

$\Delta^3$-Menthene dibromide (HENDERSON and BOYD), T., 2161; P., 277.

$C_{10}H_{20}O$ 1:3-Diethyl*cyclo*hexan-5-ol (HENDERSON and BOYD), T., 2162; P., 277.

$C_{10}H_{20}O_2$ *d*-1-Methyl-3-α-hydroxy*iso*propyl*cyclo*hexan-3-ol (HAWORTH, PERKIN and WALLACH), T., 132.

$C_{10}H_{22}O$ *d*-Methyl-*n*-octylcarbinol, and its derivatives (PICKARD and KENYON), T., 60, 70.

*n*-Hexyl*iso*propylcarbinol, rotation of (PICKARD and KENYON), P., 324.

$C_{10}H_{22}O_2$ β-Methyl-γ-propylhexane-βγ-diol (PARRY), T., 1171; P., 141.

## 10 III

$C_{10}H_4O_8N_4$ β-Tetranitronaphthalene, compounds of phenols with (SUDBOROUGH and BEARD), T., 213; P., 5.

$C_{10}H_5O_6N_3$ α-Trinitronaphthalene, additive compounds of phenols with (SUDBOROUGH and BEARD), T., 213; P., 5.

$C_{10}H_7O_4N$ Nitro-6-methylcoumarin (CLAYTON), P., 246.

$C_{10}H_7O_5N$ Ethyl cyanomyristicinate (SALWAY), T., 269.

$C_{10}H_8O_2N_4$ β-Triazoethylphthalimide (FORSTER and NEWMAN), T., 1279; P., 154.

$C_{10}H_8O_7N_6$ Acetyl derivative of 2:5-dinitro-4-acetylamino-3-triazophenol (MELDOLA and KUNTZEN), T., 43.

$C_{10}H_9ON$ 6-Methoxyquinoline, absorption spectrum of (DOBBIE and FOX), P., 325.

$C_{10}H_9O_2N$ Ethylidenephthalideoxime (LAPWORTH and STEELE), T., 1883.

$C_{10}H_9O_4N$ ω-Nitro-*p*-acetoxystyrene (REMFRY), T., 286; P., 21.

$C_{10}H_9O_4I$ Iodomeconine (PERKIN and ROBINSON), T., 783.

$C_{10}H_9O_6N$ Ethyl 3-nitro-5-aldehydosalicylate (REMFRY), T., 286; P., 21.

$C_{10}H_{10}O_2N_2$ *p*-Methoxyphenylhydantoin (CLARKE and FRANCIS), T., 324.

$C_{10}H_{10}O_4N_2$ α-Oxalylamino-α-phenylacetamide (CLARKE and FRANCIS), T., 324.

$C_{10}H_{11}ON_2$ β-Hydrindone semicarbazone (THORPE), P., 129.

$C_{10}H_{11}O_2Cl$ Ethyl *l*-phenylchloroacetate (MCKENZIE and BARROW), T., 1918.

$C_{10}H_{11}O_5N_3$ 3:4(5:6)-, and 3:5-Dinitroaceto-*o*-4-xylidide (CROSSLEY and MORRELL), T., 2350.

4:5-, and 5:6-Dinitroaceto-*o*-3-xylidide (CROSSLEY and MORRELL), T., 2352.

$C_{10}H_{12}O_3N_2$ α-Carbomethoxyamino-α-phenylacetamide (CLARKE and FRANCIS), T., 322.

$C_{10}H_{12}O_4N_2$ Di-imide of ββ-methylethylpropane-αα'γγ'-tetracarboxylic acid, and its silver salt (THOLE and THORPE), T., 442.

$C_{10}H_{12}O_6N_2$ Nitrogallamide trimethyl ether (HARDING), T., 1595.

$C_{10}H_{13}O_2N_3$ 3-Cyano-2:6-diketo-4-methyl-4-ethylpiperidine-5-carboxylamide (THOLE and THORPE), T., 439.

$C_{10}H_{14}O_2N_2$ Substance, from condensation of methyl ethyl ketonecyanohydrin and sodiocyanoacetic ester (INGLIS), T., 544; P., 46.

$C_{10}H_{14}O_2N_4$ Di-imino-di-imide of ββ-methylethylpropane-αα'γγ'-tetracarboxylic acid, and its platinichloride (THOLE and THORPE), T., 441.

6-Imino-3-cyano-5-carbamyl-4-methyl-4-ethyl-2-piperidine (THOLE and THORPE), T., 437.

$C_{10}H_{14}O_3N_2$ Ethyl 4(or 5)-glyoxalinemethylacetoacetate, and its salts (PYMAN), T., 1392.

$C_{10}H_{14}O_4N_2$ Diethylmalonylmalonamide, and its sodium salt (REMFRY), T., 617.

$C_{10}H_{15}ON_3$ *i*-, *l*- and *d*-Triazodihydrocarvone (FORSTER and VAN GELDEREN), T., 2063; P., 195.

$C_{10}H_{15}OCl$ Chlorocamphor (HENDERSON and HEILBRON), T., 1895; P., 248.

$C_{10}H_{15}OBr$ Substance, from the preparation of bromo*iso*camphenilanic acid (HENDERSON and HEILBRON), T., 1894.

$C_{10}H_{16}O_2N$ Imide of *cyclo*hexane-1:1-diacetic acid, and its silver salt (THOLE and THORPE), T., 445.

Substance, from bornylene and nitrous acid (HENDERSON and HEILBRON), T., 1898; P., 249.

$C_{10}H_{15}O_2Br$ Bromocamphenanic acid (HENDERSON and SUTHERLAND), T., 1544; P., 211, 278.

Bromo*iso*camphenilanic acid (HENDERSON and HEILBRON), T., 1894; P., 249.

$C_{10}H_{15}O_2N_3$ Pernitrosocamphorquinoneoxime (FORSTER, TROTTER and WEINTROUBE), T., 1990.

$C_{10}H_{16}ON_4$ Pinene nitrosoazide, two isomerides (FORSTER and NEWMAN), T., 247; P., 19.

Dipentene nitrosoazide (FORSTER and VAN GELDEREN), T., 2062; P., 195.

*d*- and *l*-Limonene nitrosoazides (FORSTER and VAN GELDEREN), T., 2064; P., 195.

$C_{10}H_{16}OS$ Carvone hydrosulphide, action of hydrogen cyanide on (STEELE), P., 240.

$C_{10}H_{16}OSi$ Phenyldiethylsilicol (KIPPING and HACKFORD), T., 141; P., 9.

$C_{10}H_{16}O_2N_2$ Pernitrosocamphor, constitution of (FORSTER, TROTTER and WEINTROUBE), T., 1982; P., 259.

$C_{10}H_{16}O_2N_4$ Pinol nitrosoazide (FORSTER and VAN GELDEREN), T., 2067.

$C_{10}H_{16}O_3N_2$ Bornylene nitrosites (HENDERSON and HEILBRON), T., 1896; P., 249.

$C_{10}H_{16}O_4N_2$ Dinitrocamphane (HENDERSON and HEILBRON), T., 1899; P., 249.

$C_{10}H_{16}O_4S$ Camphor-$\pi$-sulphonic acid, salts of (HILDITCH), T., 236.

$C_{10}H_{17}ON$ *N*-Anhydromethylaminolauronic acid (WEIR), T., 1274; P., 154.

Epicamphoroxime (LANKSHEAR and PERKIN), P., 167.

$C_{10}H_{17}ON_3$ Semicarbazone of *d*-3-acetyl-1-methyl-$\Delta^2$-*cyclo*hexene (HAWORTH, PERKIN and WALLACH), T., 129.

$C_{10}H_{17}O_2N$ Substance, from bornylene and nitric acid (HENDERSON and HEILBRON), T., 1900; P., 249.

$C_{10}H_{17}O_3N_3$ Semicarbazone of ethyl 1-methyl*cyclo*pentan-4-one-2-carboxylate (HOPE and PERKIN), T., 770.

$C_{10}H_{18}O_2N_4$ Terpineol nitrosoazide (FORSTER and NEWMAN), T., 250; P., 20.

$C_{10}H_{19}ON_3$ 1:1:2-Trimethyl*cyclo*hexan-3-one semicarbazone (CROSSLEY and RENOUF), T., 1110.

$C_{10}H_{19}O_2N_3$ Semicarbazone of *d*-3-acetyl-1-methyl*cyclo*hexan-3-ol (HAWORTH, PERKIN and WALLACH), T., 131.

$C_{10}H_{19}O_3N_3$ $\delta$-Acetyl-$\delta$-methylhexoic acid semicarbazone (CROSSLEY and RENOUF), T., 1111.

## 10 IV

$C_{10}H_6OClBr$ 4-Chloro-2-bromo-$\alpha$-naphthol (KING), P., 267.

$C_{10}H_7O_8NS_2$ 1-Nitroso-2-naphthol-3:6-disulphonic acid, sodium salt ($+\frac{1}{2}H_2O$) (MAY), P., 141.

$C_{10}H_{11}O_2N_2Cl$ $\alpha$-Chloroacetylamino-$\alpha$-phenylacetamide (CLARKE and FRANCIS), T., 324.

$C_{10}H_{12}ONCl$ 5-Chloroaceto-*m*-xylidide (ORTON and KING), T., 1188.

$C_{10}H_{12}O_2NCl$ 5-Chloroaceto-*o*- and *p*-phenetidides (ORTON and KING), T., 1190.

$C_{10}H_{14}O_2NCl$ $\beta$-2(4)-Chloro-3:5-dimethoxyphenylethylamine, hydrochloride (SALWAY), T., 1323.

$C_{10}H_{15}O_4BrS$ *d*- and *l*-Bromocamphorsulphonic acids, *d*- and *l*-narcotine salts of (PERKIN and ROBINSON), T., 788.

$C_{10}H_{16}ON_3Cl$ Chlorotrimethyl*cyclo*hexenone semicarbazone (CROSSLEY and RENOUF), T., 1107.

# $C_{11}$ Group.

$C_{11}H_{20}$ $\beta$-Methyl-$\Delta$-decadiene (HARDING, WALSH and WEIZMANN), T., 450.

## 11 II

$C_{11}H_{10}O_4$ Ethyl coumaranonecarboxylate, metallic salts of (MERRIMAN), T., 912; P., 101.

Substance from $\omega$-bromomethylfurfuraldehyde and barium carbonate (COOPER and NUTTALL), T., 1200; P., 135.

$C_{11}H_{10}O_5$ 5-Methoxy-3-methylphthalide-2-carboxylic acid, and its calcium salt (MELDRUM), T., 1717.

3-Methoxy-5-methylphthalide-2-carboxylic acid, and its calcium salt (MELDRUM), T., 1719.

$C_{11}H_{12}O_3$ 4:5-Dimethoxy-1-hydrindone (PERKIN, ROBERTS and ROBINSON), P., 58.

$C_{11}H_{12}O_4$ 2:3-Dimethoxycinnamic acid (PERKIN, ROBERTS and ROBINSON), P., 58.

$C_{11}H_{12}O_5$ 2:4- and 2:5-Diacetoxyanisole (MOORE), T., 1045; P., 119.

$C_{11}H_{14}O_3$ Ethyl *d*- and *l*-α-hydroxy-β-phenylpropionates (MCKENZIE and BARROW), T., 1921.

$C_{11}H_{14}O_4$ 2:3-Dimethoxy-β-phenylpropionic acid (PERKIN, ROBERTS and ROBINSON), P., 58.

$C_{11}H_{16}O$ Benzylmethylethylcarbinol, preparation of (DAVIES AND KIPPING), T., 298.

$C_{11}H_{16}O_7$ αα′-Diacetoacetin (ALPERN and WEIZMANN), T., 85.

$C_{11}H_{18}O_4$ Ethyl α-methyl-γ-ethylglutaconate (THOLE and THORPE), T., 2206.

Ethyl 4-acetoxy-1-methyl*cyclo*pentane-2-carboxylate (HOPE and PERKIN), T., 771.

$C_{11}H_{20}O_3$ Methyl θ-aldehydo-*n*-nonoate (HARDING, WALSH and WEIZMANN), T., 451.

$C_{11}H_{22}O$ αα-Dimethyl-Δβ-nonenyl alcohol (HARDING, WALSH and WEIZMANN), T., 450.

$C_{11}H_{24}O$ *dl*- and *d*-Methyl-*n*-nonylcarbinols, rotation and derivatives of (PICKARD and KENYON), T., 59, 60, 70.

## 11 III

$C_{11}H_8O_5N_2$ Nitro-6-acetylaminocoumarin (CLAYTON), P., 245.

$C_{11}H_9O_3Cl_3$ 5 (or 3)-Methoxy-3(or 5)-methyl-2-trichloromethylphthalide (MELDRUM), T., 1716.

$C_{11}H_{11}O_2Cl$ Ethyl β-chlorocinnamates, isomeric (JAMES), T., 1626.

$C_{11}H_{11}O_4N$ *O*-*N*-Diacetylsalicylamide (TITHERLEY and HICKS), T., 869; P., 102.

2-*iso*Nitroso-4:5-dimethoxy-1-hydrindone (PERKIN, ROBERTS and ROBINSON), P., 58.

$C_{11}H_{11}O_7N$ Ethyl nitromyristicinate (SALWAY), T., 268.

$C_{11}H_{12}ON_4$ β-Triazoethylquinolinium hydroxide, salts of (FORSTER and NEWMAN), T., 1282.

$C_{11}H_{12}O_2N_2$ Tryptophan, preparation of the betaine of, and its identity with hypaphorine (VAN ROMBURGH and BARGER), T., 2068; P., 258.

$C_{11}H_{13}ON$ Substance, from α-methylglutaconic acid *trans*-semianilide (THOLE and THORPE), T., 2231.

$C_{11}H_{13}O_4N$ α-Carbethoxyamino-α-phenylacetic acid (CLARKE and FRANCIS), T., 322.

Amide of *o*-carboxyphenylglycollic acid (MERRIMAN), T., 912; P., 102.

$C_{11}H_{13}O_5N$ Ethyl aminomyristicinate (SALWAY), T., 268.

$C_{11}H_{13}O_6N_3$ Dinitrovaleryl-*p*-aminophenol (MELDOLA and KUNTZEN), T., 2042.

$C_{11}H_{14}O_3N_2$ α-Carbethoxyamino-β-phenylacetamide (CLARKE and FRANCIS), T., 322; P., 22.

$C_{11}H_{15}ON$ *neo*-Cyanodihydrocarvone (LAPWORTH and STEELE), T., 1877; P., 240.

$C_{11}H_{15}ON_3$ Phenyl *iso*propyl ketone semicarbazone (LAPWORTH and STEELE), T., 1885.

$C_{11}H_{15}O_3N$ β-3:5-Dimethoxyphenylpropionamide (SALWAY), T., 1321; P., 192.

Nitromethylenecamphor (FORSTER and WITHERS), P., 327.

$C_{11}H_{15}O_4N$ 5-Acetylaminopyrogalloltrimethyl ether (+ $H_2O$) (HARDING), T., 1594.

$C_{11}H_{15}N_3S$ Camphanethiotriazine (FORSTER and ZIMMERLI), T., 489; P., 50.

$C_{11}H_{16}ON_2$ Oxime of *neo*-cyanodihydrocarvone (LAPWORTH and STEELE), T., 1880.

$C_{11}H_{16}O_3N_2$ Ethyl 4(or 5)-glyoxalinemethylmethylacetoacetate and its salts (PYMAN), T., 1393.

$C_{11}H_{16}O_4N_2$ Methylethylmalonylethylmalonamide (REMFRY), T., 618.

Diethylmalonylmethylmalonamide (REMFRY), T., 618.

Ethyl 4(or 5)-glyoxalinemethylmalonate, and its salts (PYMAN), T., 1390.

$C_{11}H_{17}O_2N$ β-Cyanodihydrocarvonecarboxylamide (LAPWORTH and STEELE), T., 1881.

$C_{11}H_{17}O_3N$ *N*-Anhydrocarboxymethylaminolauronic acid (WEIR), T., 1274; P., 154.

$C_{11}H_{17}O_4N$ Nitromethylhydroxycamphor (FORSTER and WITHERS), P., 327.

$C_{11}H_{18}ON_6$ Semicarbazones of *i*-, *l*-, and *d*-triazodihydrocarvone (FORSTER and VAN GELDEREN), T., 2063; P., 195.

$C_{11}H_{18}OSi$ Benzyldiethylsilicol (KIPPING and HACKFORD), T., 140; P., 9.

$C_{11}H_{18}O_2N_2$ 4:6-Diketo-5-propyl-2-butyltetrahydropyrimidine (REMFRY), T., 621.

$C_{11}H_{19}ON_3$ Semicarbazone of *iso*camphenilanaldehyde (HENDERSON and SUTHERLAND), T., 1546; P., 211.

Epicamphorsemicarbazone (LANKSHEAR and PERKIN), P., 167.

$C_{11}H_{19}O_4N$ Carboxymethylaminolauronic acid (WEIR), 1273; P., 154.

$C_{11}H_{20}O_3N_2$ α-Amino-*n*-nonoylglycine (HOPWOOD and WEIZMANN), T., 1578; P., 214.

### 11 IV

$C_{11}H_{11}O_4NBr$ Benzylamine bromomaleate (FRANKLAND), T., 1779; P., 206.

$C_{11}H_{14}ONCl$ 6-Chloroaceto-ψ-cumidide (ORTON and KING), T., 1189.

$C_{11}H_{15}O_4N_2Cl$ Ethyl 4(or 5)-glyoxalinemethylchloromalonate, and its salts (PYMAN), T., 1393; P., 92.

$C_{11}H_{17}ON_3S$ Camphorquinone-α- and β-thiosemicarbazones (FORSTER and ZIMMERLI), T., 483; P., 50.

$C_{11}H_{18}ON_3Cl$ Semicarbazone of chlorocamphor (HENDERSON and HEILBRON), T., 1895; P., 248.

$C_{11}H_{20}O_3NBr$ α-Bromo-*n*-nonoylglycine (HOPWOOD and WEIZMANN), T., 1578; P., 214.

## $C_{12}$ Group.

$C_{12}H_8$ Diphenylene (DOBBIE, FOX and GAUGE), T., 683; P., 90.

### 12 II

$C_{12}H_8Cl_2$ 2:2′-Dichlorodiphenyl (DOBBIE, FOX and GAUGE), T., 1615; P., 217.

$C_{12}H_8Br_2$ 2:2′-Dibromodiphenyl (DOBBIE, FOX and GAUGE), T., 1615; P., 217.

$C_{12}H_{10}O_3$ 6-Hydroxy-3-benzyl-α-pyrone, and its potassium and silver salts (THOLE and THORPE), T., 2229.

$C_{12}H_{10}O_8$ Octahydroxydiphenyl (PERKIN), T., 1447; P., 195.

$C_{12}H_{12}O_4$ *cis*-α-Benzylglutaconic acid, and its silver salt (THOLE and THORPE), T., 2228.

$C_{12}H_{12}O_5$ Lactone of 2-hydroxy-4-acetoxy-5-methoxy-β-phenylpropionic acid (MOORE), T., 1048; P., 119.

$C_{12}H_{13}N$ 2:6:8-Trimethylquinoline, salts of (JONES and EVANS), T., 338.

$C_{12}H_{14}O_2$ Ethyl phenyl*iso*crotonate (SUDBOROUGH and THOMAS), T., 2314.

$C_{12}H_{14}O_5$ 2:4:5-Trimethoxycinnamic acid (MOORE), T., 1047; P., 119.

$C_{12}H_{16}O_2$ β-Phenyl-β-methylvaleric acid, and its silver salt (INGLIS), T., 542 P., 46.

$C_{12}H_{16}O_5$ 2:4:5-Trimethoxy-β-phenylpropionic acid (MOORE), T., 1048; P., 120.

$C_{12}H_{16}N_2$ Base, from *Withania somnifera*, and its salts (POWER and SALWAY), T., 496; P., 53.

$C_{12}H_{17}N$ 2:6:8-Trimethyltetrahydroquinoline, salts of (JONES and EVANS), T., 337.

$C_{12}H_{18}O_5$ Ethyl 1-methyl*cyclo*pentan-2-one-3:4-dicarboxylate (HOPE and PERKIN), T., 774.

Ethyl 1-methyl*cyclo*pentan-4-onedicarboxylate (HOPE and PERKIN), T., 768.

$C_{12}H_{20}O_4$ Ethyl lactone of β-methyl-γ-hydroxy*iso*propyladipic acid (PERKIN), T., 758.

Ethyl α-methyl-γ-ethylglutaconate (THOLE and THORPE), T., 2205.

$C_{12}H_{24}O_2$ *d*-Methylhexylcarbinyl *n*-butyrate (HILDITCH), T., 222.

$C_{12}H_{25}O_2$ α-Aminolauric acid, synthesis of dipeptides of (HOPWOOD and WEIZMANN), T., 571; P., 55.

$C_{12}H_{26}O$ *dl*- and *d*-Methyl-*n*-decylcarbinols, and their derivatives (PICKARD and KENYON), T., 58, 60.

*n*-Octyl*iso*propylcarbinol, rotation of (PICKARD and KENYON), P., 324.

## 12 III

$C_{12}H_9O_2N$ Nitroacenaphthene, reduction of (CROMPTON and WALKER), P., 165.

$C_{12}H_9O_2Cl$ 6-Chloro-3-benzyl-α-pyrone (THOLE and THORPE), T., 2230.

$C_{12}H_9O_3N$ 1-ω-Nitrovinyl-β-naphthol (+ $2H_2O$) (REMFRY), T., 286; P., 21.

$C_{12}H_{10}O_3N_4$ 4:4′-Nitronitrosohydrazobenzene (GREEN and BEARDER), T., 1968; P., 229.

$C_{12}H_{10}O_3Si$ Anhydride of phenylmetasilicic acid (KIPPING and HACKFORD), T., 144; P., 9.

$C_{12}H_{13}O_3N$ *cis*- and *trans*-Semianilides of α-methylglutaconic acid (THOLE and THORPE), T., 2231.

Ethyl cinnamoylcarbamate, preparation of (REMFRY), T., 624.

Cotarnine, condensation of, with nitro-compounds (HOPE and ROBINSON), T., 2114; P., 265.

$C_{12}H_{13}O_5N$ Ethyl ω-nitrostyryl-*m*- and *p*-oxyacetates (REMFRY), T., 286; P., 21.

$C_{12}H_{13}O_6N_3$ Diacetyl derivative of 4:6-dinitro-*o*-3-xylidine (CROSSLEY and MORRELL), T., 2349.

$C_{12}H_{14}O_2N_4$ Di-imino-di-imide of *cyclo*hexane-1:1-dimalonic acid, and its salts (THOLE and THORPE), T., 447.

$C_{12}H_{14}O_4N_2$ α-Ethyloxalylamino-α-phenylacetamide (CLARKE and FRANCIS), T., 324.

Di-imide of *cyclo*hexane-1:1-dimalonic acid (THOLE and THORPE), T., 448.

Anhydrohydrastininenitromethane, and its picrate (HOPE and ROBINSON), T., 2136.

$C_{12}H_{15}O_3N_3$ ω-Imide of α-cyano-α′-carbamyl*cyclo*hexane-1:1-diacetic acid (THOLE and THORPE), T., 444.

$C_{12}H_{15}O_6N$ Imide of *cyclo*hexane-1:1-dimalonic acid (THOLE and THORPE), T., 444.

$C_{12}H_{16}O_3N_4$ ω′-Imino-imide of α-cyano-α′-carbamyl*cyclo*hexane-1:1-diacetic acid, and its platinichloride (THOLE and THORPE), T., 443.

$C_{12}H_{16}O_4N_2$ α-Carbethoxyamino-α-*p*-methoxyphenylacetamide (CLARKE and FRANCIS), T., 323.

$C_{12}H_{17}O_3N$ 4:6-Dimethoxy-2-β-methylaminoethylbenzaldehyde, and its salts (SALWAY), T., 1325; P., 192.

$C_{12}H_{18}O_2N_4$ Acetyl derivative of pinene nitrosoazide (FORSTER and NEWMAN), T., 248; P., 19.

$C_{12}H_{18}O_4N_2$ Diethylmalonylethylmalonamide (REMFRY), T., 618.

Dipropylmalonylmalonamide (REMFRY), T., 618.

$C_{12}H_{19}O_2Cl_3$ Menthyl trichloroacetate, preparation and rotation of (COHEN), T., 1064.

$C_{12}H_{20}OSi$ Benzylethylpropylsilicol (KIPPING and HACKFORD), T., 141; P., 9.

$C_{12}H_{20}O_2Cl_2$ Menthyl dichloroacetate, preparation and rotation of (COHEN), T., 1064.

$C_{12}H_{21}O_2Cl$ Menthyl monochloroacetate, preparation and rotation of (COHEN), T., 1063.

$C_{12}H_{21}O_2Br$ Menthyl monobromoacetate, preparation and rotation of (COHEN), T., 1064.

$C_{12}H_{21}O_2I$ Menthyl iodoacetate, preparation and rotation of (COHEN), T., 1064.

$C_{12}H_{21}O_4N$ Menthyl nitroacetate, preparation and rotation of (COHEN), T., 1064.

$C_{12}H_{24}O_3N_2$ α-Amino-*n*-nonoylalanine (HOPWOOD and WEIZMANN), T., 1581.

## 12 IV

$C_{12}H_6OCl_2S$ 2:7-Dichlorophenothioxin (HILDITCH and SMILES), T., 414.

$C_{12}H_6O_2Cl_2S$ 2:7-Dichlorophenothioxin oxide (HILDITCH and SMILES), T., 413.

$C_{12}H_6O_3Cl_2S$ 2:7-Dichlorophenothioxin dioxide (HILDITCH and SMILES), T., 414.

$C_{12}H_8O_3Cl_2S$ 2:7-Dichlorophenothioxonium hydroxide (HILDITCH and SMILES), T., 979.

$C_{12}H_8O_8N_2S_2$ 3-Nitrocarbazoledisulphonic acid, barium salt (SCHWALBE and WOLFF), T., 106.

$C_{12}H_9O_3N_3S$ 1-Phenyl-1:2:3-benzotriazole-5-sulphonic acid (SCHWALBE and WOLFF), T., 107.

$C_{12}H_9O_6NS_2$ Carbazoledisulphonic acid, potassium salt (SCHWALBE and WOLFF), T., 106.

$C_{12}H_9O_6N_2Sb$ Di-*m*-nitrodiphenylstibinic acid (MORGAN and MICKLETHWAIT), T., 2294; P., 274.

$C_{12}H_{10}O_6N_2S_2$ 3-Aminocarbazoledisulphonic acid, potassium salt (SCHWALBE and WOLFF), T., 107.

$C_{12}H_{11}O_4N_3S_2$ Carbazoledisulphonamide (SCHWALBE and WOLFF), T., 106.

$C_{12}H_{18}O_7NBr$ Bromotriacetylglucosamine, hydrobromide of (IRVINE, MCNICOLL and HYND), T., 256; P., 23.

$C_{12}H_{22}OClBr$ α-Bromolauryl chloride (HOPWOOD and WEIZMANN), T., 572; P., 55.

$C_{12}H_{22}O_3NBr$ α-Bromo-*n*-nonoylalanine (HOPWOOD and WEIZMANN), T., 1580.

## 12 V

$C_{12}H_7O_4NCl_2S_2$ Carbazoledisulphonyl chloride (SCHWALBE and WOLFF), T., 105.

# $C_{13}$ Group.

$C_{13}H_{24}$ β-Methyl-$\Delta^{\alpha\lambda}$-dodecadiene (HARDING, WALSH and WEIZMANN), T., 450; P., 12.

## 13 II

$C_{13}H_{12}O_5$ Dihydroxybenzhydrol (CROSS and BEVAN), T., 1455.

$C_{13}H_{12}N_2$ Benzaldehydephenylhydrazone, labile, preparation of (THOLE), P., 278.

$C_{13}H_{16}O_4$ α-Phenyl-*sec*-butylmalonic acid (INGLIS), T., 542.
$C_{13}H_{16}O_5$ Ethyl *o*-carboxyphenylglycollate (MERRIMAN), T., 912; P., 102.
$C_{13}H_{16}O_7$ Acid, from ethyl camphorylidenecyanoacetate and hydrogen peroxide (FORSTER and WITHERS), P., 327.
$C_{13}H_{18}O_5$ Methyl 2:4:5-trimethoxy-β-phenylpropionate (MOORE), T., 1048; P., 120.
$C_{13}H_{19}N$ 1:2:6:8-Tetramethyltetrahydroquinoline, and its salts (JONES and EVANS), T., 337.
$C_{13}H_{20}O$ Benzylethylpropylcarbinol (DAVIES and KIPPING), T., 298.
$C_{13}H_{20}O_6$ Ethyl carbethoxy-α-methylglutaconate, and its sodium salt (THOLE and THORPE), T., 2197.
Methyl diethyl carbethoxy-αγ-dimethylglutaconate (THOLE and THORPE), T., 2202.
$C_{13}H_{26}O$ αα-Dimethyl-Δκ-undecenyl alcohol (HARDING, WALSH and WEIZMANN), T., 449.
$C_{13}H_{26}O_2$ *d*-Methylhexylcarbinyl *n*-pentoate (HILDITCH), T., 222.
$C_{13}H_{28}O$ *dl*- and *d*-Methyl-*n*-undecylcarbinols, and their derivatives (PICKARD and KENYON), T., 58, 60.

## 13 III

$C_{13}H_7O_5N_3$ Diketohydrindylideneuramil, potassium salt of (RUHEMANN), T., 1491; P., 210.
$C_{13}H_8OS$ Thioxanthone, synthesis of derivatives of (CHRISTOPHER and SMILES), T., 2046; P., 265.
$C_{13}H_8O_2S$ Hydroxythioxanthone (CHRISTOPHER and SMILES), T., 2051.
$C_{13}H_8O_3S$ 1:4-Dihydroxythioxanthone (CLARKE and SMILES), T., 1538; P., 212.
$C_{13}H_8O_8N_4$ *o*-, *m*-, and *p*-Picraminobenzoic acids, and their salts (CROCKER and MATTHEWS), T., 301; P., 22.
$C_{13}H_9ClS$ Thioxanthenyl chloride (HILDITCH and SMILES), T., 158; P., 3.
Thioxanthonium chloride, and its additive salt with ferric chloride (HILDITCH and SMILES), T., 157; P., 3.
$C_{13}H_{10}OS$ Diphenylmethane *o*-sulphoxide, and intramolecular rearrangements of (HILDITCH and SMILES), T., 145; P., 3.
Thioxanthenol, constitution of (HILDITCH and SMILES), T., 156.
$C_{13}H_{10}O_4S$ 2′-Carboxy-2:5-dihydroxydiphenyl sulphide (CLARKE and SMILES), T., 1537; P., 212.
$C_{13}H_{11}NS$ Thiobenzanilide, preparation of (BARNETT), P., 8; action of hydrogen dioxide on (LEETE and BARNETT), P., 120.
$C_{13}H_{13}O_2N$ Anil of αγ-dimethylglutaconic acid (THOLE and THORPE), T., 2239.
3-Hydroxy-2-phenyl-4:6-, and 5:6-dimethyl-1:2-dihydropyridone (THOLE and THORPE), T., 2237.
$C_{13}H_{15}O_3N$ Semianilide of αγ-dimethylglutaconic acid (THOLE and THORPE), T., 2238.
*cis*- and *trans*-Semianilides of α-ethylglutaconic acid (THOLE and THORPE), T., 2231.
Semianilide of α-ethylglutaconic anhydride (THOLE and THORPE), T., 2233.
Camphorylidenecyanoacetic acid (FORSTER and WITHERS), P., 327.
$C_{13}H_{16}O_5N_2$ Anhydrocotarninenitromethane, and its salts (HOPE and ROBINSON), T., 2119.
$C_{13}H_{17}O_6N$ Rhamnose-*o*-carboxyanilide (IRVINE and HYND), T., 165; P., 9.
Acid, from ethyl camphorylidenecyanoacetate and hydrogen peroxide (+ $H_2O$) (FORSTER and WITHERS), P., 327.

$C_{13}H_{17}O_7N$ Galactose-*o*-carboxyanilide, and its barium salt (IRVINE and HYND), T., 163; P., 9.

Mannose-*o*-carboxyanilide (+ $H_2O$) (IRVINE and HYND), T., 146; P., 9.

$C_{13}H_{21}O_5N_3$ Semicarbazone of ethyl-1-methyl*cyclo*pentan-4-one-dicarboxylate (HOPE and PERKIN), T., 768.

$C_{13}H_{21}O_8N$ Triacetylmethylglucosamine, hydrobromide of (IRVINE, MCNICOLL and HYND), T., 258; P., 23.

$C_{13}H_{23}O_2Cl$ Menthyl α- and β-chloropropionate, preparation and rotation of (COHEN), T., 1064.

$C_{13}H_{23}O_2Br$ Menthyl α-bromopropionate, preparation and rotation of (COHEN), T., 1065.

$C_{13}H_{23}O_2I$ Menthyl α-iodopropionate, preparation and rotation of (COHEN), T., 1065.

$C_{13}H_{24}O_5N_2$ α-Amino-*n*-nonoylaspartic acid (HOPWOOD and WEIZMANN), T., 1584.

$C_{13}H_{25}O_3N_3$ Semicarbazone of methyl θ-aldehydo-*n*-nonoate (HARDING, WALSH and WEIZMANN), T., 451.

$C_{13}H_{26}O_4N_2$ α-Amino-*n*-nonoylasparagine (HOPWOOD and WEIZMANN), T., 1583.

### 13 IV

$C_{13}H_7OBrS$ Bromothioxanthone (MARSDEN and SMILES), T., 1356.

$C_{13}H_7O_2ClS$ Chlorohydroxythioxanthone (MARSDEN and SMILES), T., 1356.

$C_{13}H_{11}ONS$ Thiobenzanilide oxide (LEETE and BARNETT), P., 120.

$C_{13}H_{16}O_2NBr$ α-Brom*iso*valeryl-*p*-aminoacetophenone (REMFRY), T., 625; P., 72.

$C_{13}H_{18}O_3NI$ Hydrocotarnine rnethiodide (HOPE and ROBINSON), T., 2132.

$C_{13}H_{22}O_5NBr$ α-Bromo-*n*-nonoylaspartic acid (HOPWOOD and WEIZMANN), T., 1584.

$C_{13}H_{23}O_4N_2Br$ α-Bromo-*n*-nonoylasparagine (HOPWOOD and WEIZMANN), T. 1583.

## $C_{14}$ Group.

$C_{14}H_{10}$ Phenanthrene, synthesis of (KENNER and TURNER), P., 92.

$C_{14}H_{14}$ 2:2′-Ditolyl, formation of six- and seven-membered rings from derivatives of (KENNER and TURNER), T., 2101; P., 262.

### 14 II

$C_{14}H_6O_{10}$ Caeruleoellagic acid (PERKIN), T., 1443; P., 194.

$C_{14}H_8O_4$ Alizarin, occurrence of, in rhubarb (MÜLLER), T., 967; P., 101.

$C_{14}H_{10}O_2$ 2:2′-Dialdehydodiphenyl (KENNER and TURNER), T., 2112; P., 93, 262.

Lactone of ω-hydroxy-2-methyldiphenyl-2′-carboxylic acid (KENNER and TURNER), T., 2113; P., 262.

$C_{14}H_{10}O_3$ *p*-Benzoyloxybenzaldehyde (POPE), P., 73.

$C_{14}H_{10}O_9$ Gallotannic acid, constitution of, and its potassium salt (PANIKER and STIASNY), T., 1819; P., 213.

$C_{14}H_{10}Cl_4$ *pp′*-Dichlorostilbene dichloride (LAW), T., 1115.

$C_{14}H_{10}Br_4$ ωω′ω′-Tetrabromo-2:2′-ditolyl (KENNER and TURNER), T., 2112; P., 93.

$C_{14}H_{12}O_2$ Ditoluquinone (MOIR), P., 226.

Methoxy*peri*naphth-hydrindone (BARGER and STARLING), T., 2030; P., 259.

$C_{14}H_{12}O_3$ ω-Hydroxy-2-methyldiphenyl-2′-carboxylic acid (KENNER and TURNER), T., 2113; P., 262.

β-2-Methoxynaphthylacrylic acid (BARGER and STARLING), T., 2032; P., 258.

Trihydroxydihydroanthracene (TUTIN and CLEWER), T., 961; P., 90.

$C_{14}H_{12}Br_2$ ωω′-Dibromo-2:2′-ditolyl (KENNER and TURNER), T., 2108; P., 98.

$C_{14}H_{14}O_3$ β-2-Methoxynaphthylpropionic acid (BARGER and STARLING), T., 2030; P., 258.

$C_{14}H_{14}N_2$ Ditolylquinonedi-imine (MOIR), P., 226.

$C_{14}H_{16}O_4$ Ethyl hydrogen α-benzylglutaconate (THOLE and THORPE), T. 2230.

$C_{14}H_{18}O_4$ α-Phenyl-α-methylbutylmalonic acid (INGLIS), T., 543.

$C_{14}H_{20}O_4$ Menthyl hydrogen acetylenedicarboxylate (HILDITCH), T., 223; P., 6.

$C_{14}H_{20}O_5$ Hydroxyfisetol triethyl ether (PERKIN), T., 1725; P., 225.

$C_{14}H_{22}O_4$ Menthyl hydrogen fumarate (HILDITCH), T., 223; P., 6.

$C_{14}H_{22}O_6$ Ethyl carbethoxy-αγ-dimethylglutaconate (THOLE and THORPE), T., 2202.

Ethyl carbethoxy-α-ethylglutaconate (THOLE and THORPE), T., 2199.

$C_{14}H_{22}O_8$ Decane-δδ-ηη-tetracarboxylic acid (REMFRY), T., 623.

$C_{14}H_{24}O_4$ Menthyl hydrogen succinate (HILDITCH), T., 222; P., 6.

Ethyl *cyclo*hexane-1:1-diacetate (THOLE and THORPE), T., 446.

$C_{14}H_{24}O_6$ Ethyl γ-methylbutane-αβδ-tricarboxylate (HOPE and PERKIN), T., 767.

Ethyl pentane-αβδ-tricarboxylate (HOPE and PERKIN), T., 774.

$C_{14}H_{28}O_2$ *d*-Methylhexylcarbinyl *n*-hexoate (HILDITCH), T., 222.

$C_{14}H_{30}N_2$ Di*iso*amylpiperazine (CLARKE), T., 1934.

$C_{14}H_{32}N_2$ *s*-Dimethyldi*iso*amylethylenediamine (CLARKE), T., 1934.

## 14 III

$C_{14}H_9O_2N$ *p*-Benzoyloxybenzonitrile (POPE), P., 74.

2-Phenyl-1:3-benzoxazine-4-one, action of ammonia and amines on (TITHERLEY and HUGHES), T., 1493; P., 190.

$C_{14}H_{10}O_2Br$ Dibromoditoluquinone (MOIR), P., 226.

$C_{14}H_{10}O_2S$ 2-Hydroxy-5- and 7-methylthioxanthones (CHRISTOPHER and SMILES), T., 2050.

$C_{14}H_{10}O_8N_6$ 3-*p*-Nitrobenzeneazo-2:5-dinitro-4-acetylaminophenol (MELDOLA and KUNTZEN), T., 40.

$C_{14}H_{11}O_3N$ *p*-Benzoyloxybenzaldoxime (POPE), P., 74.

$C_{14}H_{11}O_4N$ Benzoin mononitrate (FRANCIS and KEANE), T., 348; P., 44.

$C_{14}H_{11}O_5N_6$ 4:7-Dinitro-6-hydroxy-1-*p*-aminophenyl-2-methylbenziminazole, and its ammonium salt (MELDOLA and KUNTZEN), T., 39.

$C_{14}H_{11}O_6N_5$ 3-Benzeneazo-2:5-dinitro-4-acetylaminophenol, and its sodium salt (MELDOLA and KUNTZEN), T., 40.

$C_{14}H_{12}OS$ 2:7-Dimethylphenothioxin (HILDITCH and SMILES), T., 412.

$C_{14}H_{12}O_2N_2$ Salicylbenzamidine, and its hydrochloride (TITHERLEY and HUGHES), T., 1499; P., 190.

$C_{14}H_{12}O_2Cl_2$ *mm′*-Dichlorohydrobenzoin (LAW), T., 1115.

$C_{14}H_{12}O_2S$ 2:7-Dimethylphenothioxin oxide (HILDITCH and SMILES), T., 413.

$C_{14}H_{12}O_3N_2$ Phenylhydrazones of 3- and 5-aldehydosalicylic acids (REMFRY), T., 286; P., 21.

$C_{14}H_{12}O_3S$ 2:7-Dimethylphenothioxin dioxide (HILDITCH and SMILES), T., 413.

$C_{14}H_{12}O_6N_2$ 5:5′-Dinitro-4:4′-dihydroxy-3:3′-ditolyl (MOIR), P., 227.

$C_{14}H_{13}O_2N$ *p*-Methoxysalicylideneaniline (GOULDING and PELLY), P., 235.

$C_{14}H_{14}O_3S$ 2:7-Dimethylphenothioxonium hydroxide, and its salts (HILDITCH and SMILES), T., 981.

$C_{14}H_{14}O_8S_2$ 4:4′-Dihydroxy-3:3′-ditolyldisulphonic acid, barium salt (MOIR), P., 227.

$C_{14}H_{15}O_2N$ Anil of $\alpha\beta\gamma$-trimethylglutaconic acid (THOLE and THORPE), T., 2241.

$C_{14}H_{15}O_2N$ 3-Hydroxy-2-phenyl-4:5:6-trimethyl-1:2-dihydropyridone (THOLE and THORPE), T., 2241.

$C_{14}H_{15}O_7N_5$ Substance, obtained in the preparation of methylethylmalonylmalonamide (REMFRY), T., 616.

$C_{14}H_{16}O_2N_2$ Dibenzylammonium nitrite (RÂY and DATTA), T., 1477; P., 127.

$\omega$-Ethoxymethylfurfuraldehydephenylhydrazone (COOPER and NUTTALL), T., 1198.

$C_{14}H_{17}O_3N$ Semianilide of $\alpha\beta\gamma$-trimethylglutaconic acid (THOLE and THORPE), T., 2240.

Methyl camphorylidenecyanoacetate (FORSTER and WITHERS), P., 327.

$C_{14}H_{18}O_2N_2$ Hypaphorine, identity of, with the betaine of tryptophan (VAN ROMBURGH and BARGER), T., 2068; P., 258.

$C_{14}H_{18}O_3N_2$ Ethyl $\beta$-carbamylphenylmethylaminocrolonate (CLARKE and FRANCIS), T., 322.

Physovenine (SALWAY), T., 2152; P., 273.

$C_{14}H_{26}ON_2$ Nitrolpiperidide of *l*-1-methyl-3-ethylidene*cyclo*hexane (HAWORTH, PERKIN and WALLACH), T., 127.

$C_{14}H_{28}O_3N_2$ $\alpha$-Amino-*n*-nonoylvaline (HOPWOOD and WEIZMANN), T., 1581.

$\alpha$-Aminolaurylglycine (HOPWOOD and WEIZMANN), T., 572; P., 55.

## 14 IV

$C_{14}H_8O_2NBr$ 6-Bromo-2-phenyl-1:3-benzoxazine-4-one (HUGHES and TITHERLEY), T., 27.

$C_{14}H_9O_2N_2Cl$ Phthalyl-*p*-chlorophenylhydrazide (CHATTAWAY and WÜNSCH), T., 2261.

$C_{14}H_9O_2N_2Br$ Phthalyl-*p*-bromophenylhydrazide (CHATTAWAY and WÜNSCH), T., 2260.

$C_{14}H_{10}O_2NBr$ *syn*-Benzylidene-5-bromosalicylamide (HUGHES and TITHERLEY), T., 26.

6-Bromo-2-phenyldihydro-1:3-benzoxazine-4-one (HUGHES and TITHERLEY), T., 23.

$C_{14}H_{10}O_3NBr$ *O*-and *N*-Benzoyl-5-bromosalicylamide (HUGHES and TITHERLEY), T., 28.

$C_{14}H_{11}ONS$ 2-Amino-7-methylthioxanthone (CHRISTOPHER and SMILES), T., 2049.

$C_{14}H_{12}O_4NBr$ 3-Bromo-3′-nitro-4:4′-dihydroxy-3:3′-ditolyl (MOIR), P., 227.

$C_{14}H_{15}O_4NS_2$ Sulphonic acid of hydroxydimethylaminophenyl sulphide, sodium salt (PRESCOTT and SMILES), T., 647.

$C_{14}H_{16}O_2N_2S$ *as*-Toluene-*p*-sulphonylmethyl-*m*- and *p*-phenylenediamine (MORGAN and MICKLETHWAIT), P., 326.

$C_{14}H_{26}O_3NBr$ $\alpha$-Bromo-*n*-nonoylvaline (HOPWOOD and WEIZMANN), T., 1581.

$\alpha$-Bromolaurylglycine (HOPWOOD and WEIZMANN), T., 572; P., 55.

# $C_{15}$ Group.

$C_{15}H_8O_6$ Rhein (TUTIN and CLEWER), T., 951; P., 89.

$C_{15}H_{10}O_8$ Myricetin (PERKIN), T., 1721; P., 225.

$C_{15}H_{12}O$ 3:5-Dibenzo-$\Delta^{3:5}$-*cyclo*heptadien-1-one (KENNER and TURNER), T., 2111; P., 263.

$C_{15}H_{16}O$ Benzylphenylmethylcarbinol, preparation of (DAVIES and KIPPING), T., 298.

$C_{15}H_{16}O_2$ 4:8-Dimethyl-6-*tert.*-butylcoumarin (CLAYTON), P., 246.

$C_{15}H_{18}O_4$ Ethyl hydrindene-2:2-dicarboxylate (THOLE and THORPE), T., 2186.

$C_{15}H_{24}O_6$ Ethyl carbethoxy-γ-methyl-α-ethylglutaconate (THOLE and THORPE), T., 2204.

Ethyl carbethoxy-α-methyl-γ-ethylglutaconate (THOLE and THORPE), T., 2205.

$C_{15}H_{26}O_3$ Allyl menthoxyacetate (FRANKLAND and O'SULLIVAN), T., 2332; P., 319.

$C_{15}H_{28}O_3$ Propyl menthoxyacetate (FRANKLAND and O'SULLIVAN), T., 2333; P., 319.

$C_{15}H_{30}O$ Methyl-*n*-tridecyl ketone (PICKARD and KENYON), P., 312.

$C_{15}H_{32}O$ Methyl-*n*-tridecylcarbinol, and its salts (PICKARD and KENYON), P., 313.

## 15 III

$C_{15}H_{10}O_3N_2$ Benzeneazocarbonylcoumaranone, and its silver salt (MERRIMAN), T., 914; P., 102.

$C_{15}H_{11}O_4N$ ω-Nitro-*p*-benzoyloxystyrene (REMFRY), T., 286; P., 21.

$C_{15}H_{11}O_7N$ Aminoquercetin, and its salts (WATSON), P., 164.

$C_{15}H_{12}OS$ 1:3- and 1:4-Dimethylthioxanthone (MARSDEN and SMILES), T., 1355.

$C_{15}H_{12}O_2N_2$ Malonylbenzidine (REMFREY), T., 621.

Phthalylphenylmethylhydrazide (CHATTAWAY and WÜNSCH), T., 2261.

Phthalyl-*o*-, and *p*-tolylhydrazide (CHATTAWAY and WÜNSCH), T., 2259.

$C_{15}H_{12}O_3S$ 1:4-Dimethoxythioxanthone (CLARKE and SMILES), T., 1538.

$C_{15}H_{12}O_5N_4$ 4:7-Dinitro-6-hydroxy-1-phenyl-2-ethylbenziminazole (MELDOLA and KUNTZEN), T., 2041.

$C_{15}H_{13}ON$ Oxime of 3:5-dibenzo-$\Delta^{3:5}$-*cyclo*heptadien-1-one (KENNER and TURNER), T., 2111.

$C_{15}H_{14}ON_2$ α-Benzylideneamino-α-phenylacetamide (CLARKE and FRANCIS), T., 320; P., 22.

$C_{15}H_{14}O_2N_2$ α-Salicylideneamino-α-phenylacetamide (CLARKE and FRANCIS), T., 321.

Salicylphenylacetamidine (TITHERLEY and HICKS), T., 869; P., 102.

*o*-Methoxybenzoylbenzamidine (TITHERLEY and HUGHES), T., 1506.

Salicylmethylbenzamidine (TITHERLEY and HUGHES), T., 1501.

$C_{15}H_{14}O_4S$ 2′-Carboxy-2:5-dimethoxydiphenyl sulphide (CLARKE and SMILES), T., 1537.

$C_{15}H_{14}O_6N_4$ 4:7-Dinitro-6-hydroxy-1-phenyl-2:3-dimethylbenziminazolol (MELDOLA and KUNTZEN), T., 1295.

4:7-Dinitro-6-hydroxy-1-phenyl-2:3-dimethylbenziminazolium hydroxide, and its salts (MELDOLA and KUNTZEN), T., 1290.

$C_{15}H_{15}O_2N$ *d*- and l-α-*p*-Hydroxy-*N*-benzoylphenylethylamine (MOORE), T., 420.

$C_{15}H_{15}O_2N_3$ Dimethylaminoazobenzene-*o*-carboxylic acid (*methyl red*), and its metallic salts (HOWARD and POPE), T., 1333; P., 206.

$C_{15}H_{16}ON_2$ Dihydrocinnamenylphenylcarbamide (FORSTER AND STÖTTER), T., 1338.

$C_{15}H_{18}OSi$ Dibenzylmethylsilicol (KIPPING and HACKFORD), T., 142; P., 9.

$C_{15}H_{19}ON$ Trimethyldihydroresorcinanilide (CROSSLEY and RENOUF), T., 1106.

$C_{15}H_{19}O_3N$ Ethyl camphorylidenecyanoacetate (FORSTER and WITHERS), P., 327.

$C_{15}H_{21}ON$ *p*-Toluidides of *cis*- and *trans*-1-methyl*cyclo*hexan-4-carboxylic acid (CHOU and PERKIN), T., 536.

$C_{15}H_{21}O_6N$ Ester, from ethyl camphorylidenecyanoacetate and hydrogen peroxide (FORSTER and WITHERS), P., 327.

$C_{15}H_{23}O_6N$ Ethyl β-cyano-γ-methylbutane-αβδ-tricarboxylate (HOPE and PERKIN), T., 766; P., 95.

Ethyl β-cyanopentane-αβδ-tricarboxylate (HOPE and PERKIN), T., 773.

$C_{15}H_{24}O_6N_4$ Dipropylmalonyldimalonamide (REMFRY), T., 619.

$C_{15}H_{27}O_2N$ Menthyl allylaminoacetate (FRANKLAND and O'SULLIVAN), T., 2334; P., 319.

Menthoxyacetic allylamide (FRANKLAND and O'SULLIVAN), T., 2331; P., 319.

$C_{15}H_{29}O_2N$ Menthyl propylaminoacetate (FRANKLAND and O'SULLIVAN), T., 2335; P., 319.

Menthoxyacetic propylamide (FRANKLAND and O'SULLIVAN), T., 2332; P., 319.

*dl*- and *d*-β-Butyl-*l*-menthylcarbamates (PICKARD and KENYON), T., 64.

$C_{15}H_{30}O_3N_2$ α-Amino-*n*-nonoyl-leucine (HOPWOOD and WEIZMANN), T., 1582.

α-Aminolaurylalanine (HOPWOOD and WEIZMANN), T., 573.

## 15 IV

$C_{15}H_{11}O_2ClS$ Chloroethoxythioxanthone (MARSDEN and SMILES), T., 1356.

$C_{15}H_{11}O_5N_4Cl$ 4:7-Dinitro-1-*p*-chlorophenyl-2:3-dimethyl-6-benziminazone (MELDOLA and KUNTZEN), T., 2040.

$C_{15}H_{12}ONCl$ Anilides of β-chlorocinnamic acids, isomeric (JAMES), T., 1626.

$C_{15}H_{12}O_5N_4Cl_2$ 4:7-Dinitro-6-hydroxy-1-*p*-chlorophenyl-2:3-dimethyl benziminazolium chloride (MELDOLA and KUNTZEN), T., 2040.

$C_{15}H_{13}O_6N_4Cl$ 4:7-Dinitro-6-hydroxy-1-*p*-chlorophenyl-2:3-dimethyl-2-benziminazolol (MELDOLA and KUNTZEN), T., 2040.

$C_{15}H_{15}O_4NS$ *N*-α- and β-Naphthalenesulphonylallylglycine (ALPERN and WEIZMANN), T., 87.

$C_{15}H_{21}O_2N_2I$ Iodide of methyl α-trimethylamino-β-indolepropionate (VAN ROMBURGH and BARGER), T., 2069; P., 258.

$C_{15}H_{21}O_5N_2I$ Methylanhydrocotarninenitromethane methiodide (HOPE and ROBINSON), T., 2120.

Anhydrocotarninenitroethane methiodide (HOPE and ROBINSON), T., 2122.

$C_{15}H_{28}O_3NBr$ α-Bromo-*n*-nonoyl-leucine (HOPWOOD and WEIZMANN), T., 1582.

α-Bromolaurylalanine (HOPWOOD and WEIZMANN), T., 573.

# $C_{16}$ Group.

$C_{16}H_{18}$ 3:4:3′:4′-Tetramethyldiphenyl (CROSSLEY and HAMPSHIRE), T., 726.

## 16 II

$C_{16}H_{12}O_6$ Substance, from the seeds of *Casimiroa edulis* (POWER and CALLAN), T., 2006; P., 258.

$C_{16}H_{12}N_2$ 2:2′-Ditolyl-ωω′-dicarboxylonitrile (KENNER and TURNER), T., 2109; P., 263.

1-Imino-2-cyano-3:5-dibenzo-$\Delta^{3:5}$-*cyclo*heptadiene (KENNER and TURNER), T., 2110; P., 263.

$C_{16}H_{14}O_4$ Phenylmethylcarbinyl hydrogen phthalate (PICKARD and KENYON), T., 58.

2:2′-Ditolyl-$\omega\omega'$-dicarboxylic acid (KENNER and TURNER), T., 2110; P., 93.

$C_{16}H_{16}O$ *as*-Diphenyldimethylethylene oxide (PARRY), T., 1172; P., 142.

$C_{16}H_{18}O_2$ $\alpha\alpha$-Diphenyl-$\beta$-methylpropane-$\alpha\beta$-diol (PARRY), T., 1172; P., 141.

*iso*Hydrotoluoin (LAW), T., 1116.

$C_{16}H_{19}N$ Aminotetramethyldiphenyl, and its hydrochloride (CROSSLEY and HAMPSHIRE), T., 725.

$C_{16}H_{20}Si_2$ Diphenyldiethylsilicoethylene (KIPPING), P., 144.

$C_{16}H_{22}O_2$ Benzoyltrimethyl*cyclo*hexanol (CROSSLEY and RENOUF), T., 1109.

$C_{16}H_{32}O_2$ Palmitic acid, equilibrium of, with its sodium salt (DONNAN and WHITE), T., 1668; P., 216.

## 16 III

$C_{16}H_6O_6N_4$ 4:7-Dinitro-6-hydroxy-1-phenyl-2-methyl-3-ethylbenziminazolium hydroxide, and its salts (MELDOLA and KUNTZEN), T., 1297.

$C_{16}H_8O_2S_2$ Bisoxythionaphthen ("*thioindigo*"), synthesis of (PRESCOTT and SMILES), P., 317.

$C_{16}H_9O_{10}N$ 6-Nitrodiphenyl-3:4:3′:4′-tetracarboxylic acid ($+H_2O$), and its silver salt (CROSSLEY and HAMPSHIRE), T., 724.

$C_{16}H_{11}O_2N$ 1:3-Diketo-2-benzylidenehydrindamine (RUHEMANN), T., 1489.

$C_{16}H_{11}O_3N$ 1:3-Diketo-2-salicylidenehydrindamine (RUHEMANN), T., 1490.

$C_{16}H_{12}O_2Br_2$ Phenyl *p*-methoxystyryl ketone dibromide, elimination of bromine from (WILSON and BOON), P., 197.

$C_{16}H_{12}O_6N_4$ 4:7-Dinitro-6-hydroxy-1-*p*-acetylphenyl-2-methylbenziminazole (MELDOLA and KUNTZEN), T., 44.

$C_{16}H_{12}O_9N_6$ Diacetyl derivative of 3-*p*-nitrobenzeneazo-2:5-dinitro-4-acetylaminophenol (MELDOLA and KUNTZEN), T., 40.

$C_{16}H_{13}O_2N_2$ 1-Imino-3:5-dibenzo-$\Delta^{3:5}$-*cyclo*heptadiene-2-carboxylic acid (KENNER and TURNER), T., 2111; P., 263.

$C_{16}H_{13}O_2Br$ Phenylbromo-*p*-methoxystyryl ketone (WILSON and BOON), P., 198.

$C_{16}H_{13}O_3N$ $\alpha$-Benzoylamino-3:4-dihydroxycinnamic acid (FUNK), T., 556.

*p*-Nitroacetylbenzoin (FRANCIS and KEANE), T., 346; P., 44.

$C_{16}H_{13}O_5N_5$ 4:7-Dinitro-6-hydroxy-1-*p*-acetylaminophenyl-2-methylbenziminazole (MELDOLA and KUNTZEN), T., 38.

Oxime of 4:7-dinitro-6-hydroxy-1-*p*-acetylphenyl-2-methylbenziminazole (MELDOLA and KUNTZEN), T., 44.

$C_{16}H_{13}O_7N_5$ Acetyl derivative of 3-benzeneazo-2:5-dinitro-4-acetylaminophenol (MELDOLA and KUNTZEN), T., 42.

$C_{16}H_{14}O_2N_2$ 2-Dimethylaminoanilo-1:3-diketohydrindene (RUHEMANN), T., 796.

$C_{16}H_{14}O_5N_4$ 4:7-Dinitro-1-phenyl-3-methyl-2-ethyl-6-benziminazolone (MELDOLA and KUNTZEN), T., 2041.

4:7-Dinitro-6-hydroxy-1-phenyl-2-methyl-3-ethylbenziminazolone (MELDOLA and KUNTZEN), T., 1298.

4:7-Dinitro-1-benzyl-2:3-dimethyl-6-benziminazolone (MELDOLA and KUNTZEN), T., 2044.

4:7-Dinitro-6-hydroxy-1-*p*-tolyl-2:3-dimethylbenziminazolone (MELDOLA and KUNTZEN), T., 1300.

4:7-Dinitro-6-ethoxy-1-phenyl-2-methylbenziminazole (MELDOLA and KUNTZEN), T., 1294.

$C_{16}H_{14}O_6N_4$ 4:7-Dinitro-1-*p*-anisyl-2:3-dimethyl-6-benziminazolone (MELDOLA and KUNTZEN), T., 2039.

**$C_{16}H_{14}O_8N_4$** Tetranitrotetramethyldiphenyl (CROSSLEY and HAMPSHIRE), T., 724.

**$C_{16}H_{15}O_5N$** *dl*-α-Benzoylamino-3:4-dihydroxy-β-phenylpropionic acid (FUNK), T., 556.

**$C_{16}H_{16}O_2N_2$** *o*- and *p*-Methoxybenzylidene-α-phenylacetamide (CLARKE and FRANCIS), T., 321.

Ethylmalonylbenzidine (REMFREY), T., 622.

2:2′-Ditolyl-ωω′-dicarboxyamide (KENNER and TURNER), T., 2110.

Salicylethylbenzamidine (TITHERLEY and HUGHES), T., 1502.

**$C_{16}H_{16}O_3N_2$** Benzoyl derivative of α-amino-α-*p*-methoxyphenylacetamide (CLARKE and FRANCIS), T., 323.

Phenylhydrazone of ethyl 5-aldehydosalicylate (REMFRY), T., 286; P., 21.

**$C_{16}H_{16}O_6N_4$** 4:7-Dinitro-6-hydroxy-1-phenyl-3-methyl-2-ethyl-2-benziminazolol (MELDOLA and KUNTZEN), T., 2042.

4:7-Dinitro-6-hydroxy-1-phenyl-2-methyl-3-ethylbenziminazolol (MELDOLA and KUNTZEN), T., 1299.

4:7-Dinitro-6-hydroxy-1-*p*-tolyl-2:3-dimethylbenziminazolol (MELDOLA and KUNTZEN), T., 1301.

4:7-Dinitro-6-hydroxy-1-phenyl-2-ethyl-3-methylbenziminazolium hydroxide, salts of (MELDOLA and KUNTZEN), T., 2041.

4:7-Dinitro-6-hydroxy-1-*p*-tolyl-2:3-dimethylbenziminazolium hydroxide, and its salts (MELDOLA and KUNTZEN), T., 1300.

**$C_{16}H_{16}O_7N_4$** 4:7-Dinitro-6-hydroxy-1-*p*-anisyl-2:3-dimethyl-2-benziminazolol (MELDOLA and KUNTZEN), T., 2040.

**$C_{16}H_{17}O_2N$** 6-Nitro-3:4:3′:4′-tetramethyldiphenyl (CROSSLEY and HAMPSHIRE), T., 723; P., 90.

**$C_{16}H_{17}O_3N$** α-*p*-Hydroxy-*m*-methoxy-*N*-benzoylphenylethylamine (MOORE), T., 418.

**$C_{16}H_{17}O_4N$** Narcissine, and its picrate (TUTIN), T., 1244; P., 149.

**$C_{16}H_{18}O_2S_2$** Di-*p*-tolyl methyl ether disulphide (HILDITCH), T., 1100.

**$C_{16}H_{18}O_3S_2$** Di-*p*-phenetyl disulphoxide (HILDITCH), T., 1097.

Di-*p*-tolyl methyl ether disulphoxide (HILDITCH), T., 1100.

**$C_{16}H_{19}O_2N$** *N*-Anhydrobenzoylaminolauronic acid (WEIR), T., 1276; P., 154.

Benzoyl derivative of *d*-3-acetyl-1-methyl $\Delta^2$-*cyclo*hexene (HAWORTH, PERKIN and WALLACH), T., 128.

**$C_{16}H_{19}O_4N_5$** Pernitrosocamphorquinone-*p*-nitrophenylhydrazone (FORSTER, TROTTER and WEINTROUBE), T., 1986.

**$C_{16}H_{20}ON_2$** Camphorquinone-α- and β-phenylhydrazones (FORSTER and ZIMMERLI), T., 483; P., 50.

**$C_{16}H_{20}O_2N_4$** Pernitrosocamphorquinonephenylhydrazone (FORSTER, TROTTER and WEINTROUBE), T., 1985.

**$C_{16}H_{20}O_3N_4$** Oxime of camphorquinone-*p*-nitrophenylhydrazone (FORSTER, TROTTER and WEINTROUBE), T., 1987.

**$C_{16}H_{20}O_8N_4$** 2:3:5-Trinitro-1:4-di*iso*valerylaminophenol (MELDOLA and KUNTZEN), T., 2042.

**$C_{16}H_{21}O_3N$** Benzoylaminolauronic acid (WEIR), T., 1275; P., 154.

Anilic acid from *cyclo*hexane-1:1-diacetic anhydride (THOLE and THORPE), T., 446.

**$C_{16}H_{21}O_4N$** *o*- and *m*-Nitrobenzoyltrimethyl*cyclo*hexanol (CROSSLEY and RENOUF), T., 1109.

**$C_{16}H_{22}O_6N_4$** Ethylenebis-5-propylbarbituric acid (REMFRY), T., 623; P., 73.

**$C_{16}H_{31}O_4N_3$** α-Aminolaurylasparagine (HOPWOOD and WEIZMANN), T., 576.

## 16 IV

**$C_{16}H_{12}O_3ClP$** Phenyl-β-naphthylphosphoryl chloride (KIPPING and CHALLENGER), T., 629.

**$C_{16}H_{14}ONCl$** *p*-Toluidides of β-chlorocinnamic acids, isomeric (JAMES), T., 1626.

**$C_{16}H_{14}O_3NP$** Phenyl-β-naphthylphosphoramide (KIPPING and CHALLENGER), T., 635.

**$C_{16}H_{15}O_5N_4Cl$** 4:7-Dinitro-6-hydroxy-1-benzyl-2:3-dimethylbenziminazolium chloride (MELDOLA and KUNTZEN), T., 2044.

**$C_{16}H_{15}O_6N_4Cl$** 4:7-Dinitro-6-hydroxy-1-*p*-anisyl-2:3-dimethylbenziminazolium chloride (MELDOLA and KUNTZEN), T., 2039.

**$C_{16}H_{16}O_3Cl_2S$** *p*-Chlorophenol *o*-sulphoxide ethyl ether (HILDITCH and SMILES), T., 416.

**$C_{16}H_{19}O_2N_4Br$** Pernitrosocamphorquinone-*p*-bromophenylhydrazone (FORSTER, TROTTER and WEINTROUBE), T., 1988.

**$C_{16}H_{19}O_4NS_2$** Sulphonic acid of ethoxydimethylaminophenyl sulphide (+ $H_2O$), ammonium salt (PRESCOTT and SMILES), T., 646.

**$C_{16}H_{20}ON_2Br$** Oxime of camphorquinone-*p*-bromophenylhydrazone (FORSTER, TROTTER and WEINTROUBE), T., 1989.

**$C_{16}H_{20}O_4N_2Br$** α-Bromolaurylasparagine (HOPWOOD and WEIZMANN), T., 575.

# $C_{17}$ Group.

**$C_{17}H_{10}O_6$** Rheinolic acid (TUTIN and CLEWER), T., 954; P., 89.

**$C_{17}H_{12}O_5$** Ethyl 6-ethoxy-3-benzyl-α-pyrone-5-carboxylate (THOLE and THORPE), T., 2201.

**$C_{17}H_{19}Br$** α-Bromo-αα-dibenzylpropane (DAVIES and KIPPING), T., 300.

**$C_{17}H_{20}O$** Dibenzylethylcarbinol (DAVIES and KIPPING), T., 299.

**$C_{17}H_{21}N_3$** Phenylhydrazone of *neo*-cyanodihydrocarvone (LAPWORTH and STEELE), T., 1880.

**$C_{17}H_{22}O_2$** *d*-Methylhexylcarbinyl phenylpropiolate (HILDITCH), T., 222; P., 6.

**$C_{17}H_{24}O_2$** *dl*-, *d*-, and *l*-β-Octylcinnamates (PICKARD and KENYON), T., 67.

*d*-Methylhexylcarbinylcinnamate (HILDITCH), T., 222; P., 6.

**$C_{17}H_{26}O_2$** *d*- and *l*-β-Octyl β-phenylpropionates (PICKARD and KENYON), T., 66.

*d*-Methylhexylcarbinyl β-phenylpropionate (HILDITCH), T., 222; P., 6.

**$C_{17}H_{28}O_8$** Ethyl *cyclo*pentane-1:1:3:3-tetracarboxylate (THOLE and THORPE), T., 2186.

**$C_{17}H_{34}O$** Methyl-*n*-pentadecyl ketone (PICKARD and KENYON), P., 313.

**$C_{17}H_{36}O$** Methyl-*n*-pentadecylcarbinol, and its salts (PICKARD and KENYON), P., 313.

## 17 III

**$C_{17}H_9O_5N$** Lactimide of *a*-benzoylamino-3:4-dihydroxycinnamic acid (FUNK), T., 555.

**$C_{17}H_{12}O_3N_2$** 2-Hydroxy-α-naphthylidene-*m*-nitroaniline (SENIER and CLARKE), T., 2082.

**$C_{17}H_{13}O_2N$** Ethyl *N*-allylglycine (ALPERN and WEIZMANN), T., 86.

2-Hydroxy-α-naphthylidene-*o*- *m*-, and *p*-aminophenols (SENIER and CLARKE), T., 2082.

**$C_{17}H_{13}O_2N_3$** *o*-Carboxybenzeneazo-α-naphthylamine, and its sodium salt (HOWARD and POPE), T., 1335.

**$C_{17}H_{13}O_3N$** 1:3-Diketo-2-anisylidenehydrindamine (RUHEMANN), T., 1490.

**$C_{17}H_{15}O_2N$** Cinnamoyl-*p*-aminoacetophenone (REMFRY), T., 625; P., 72.

**$C_{17}H_{16}O_3N_2$** Ethyl coumaranonecarboxylatephenylhydrazone (MERRIMAN), T., 915; P., 101.

$C_{17}H_{16}O_4Br$ 5:5′-Dibromo-4:4′-diacetoxy-3:3″-ditolyl (MOIR), P., 227.

$C_{17}H_{16}O_5N_4$ 4:7-Dinitro-6-hydroxy-1-phenyl-2-*iso*butylbenziminazole (MELDOLA and KUNTZEN), T., 2043.

$C_{17}H_{17}ON_3$ *s*-Dihydrocinnamenylphenylsemicarbazide (FORSTER and STÖTTER), T., 1338.

$C_{17}H_{18}O_3N_2$ *α-p*-Methoxybenzylideneamino-*α-p*-methoxyphenylacetamide (CLARKE and FRANCIS), T., 323.

$C_{17}H_{19}O_2N$ *ββ*-Methylethylglutaro-*α*-naphthylamic acid (THOLE and THORPE), T., 440.

$C_{17}H_{19}O_4N_3$ Benzoyl derivative of pernitrosocamphorquinoneoxime (FORSTER, TROTTER and WEINTROUBE), T., 1990.

$C_{17}H_{21}O_2N_5$ Phenylcarbamyl derivative of dipentene nitrosoazide (FORSTER and VAN GELDEREN), T., 2062.

Phenylcarbamyl derivatives of *d*- and *l*-limonene nitrosoazides (FORSTER and VAN GELDEREN), T., 2064.

$C_{17}H_{21}O_3N$ Benzoyl derivative of pinene nitrosoazide (FORSTER and NEWMAN), T., 249.

$C_{17}H_{22}ON_2$ Camphorbenzoylhydrazone (FORSTER, TROTTER and WEINTROUBE), T., 1922.

$C_{17}H_{22}O_3N_6$ Semicarbazone of camphorquinone-*p*-nitrophenylhydrazone (FORSTER, TROTTER and WEINTROUBE), T., 1987.

$C_{17}H_{23}ON_5$ Semicarbazone of camphorquinonephenylhydrazone (FORSTER, TROTTER and WEINTROUBE), T., 1986.

$C_{17}H_{23}O_2N$ Phenylurethane of $\Delta^4$-*o*-menthenol(8) (PERKIN), T., 756.

Phenylurethane of $\Delta^5$-*o*-menthenol(8) (PERKIN), T., 736.

Phenylurethanes of *d*- and *dl*-$\Delta^2$-*m*-menthenol(8) (HAWORTH, PERKIN and WALLACH), T., 126, 130.

$C_{17}H_{23}O_2F$ Menthyl fluorobenzoates, preparation and rotation of (COHEN), T., 1058; P., 123.

$C_{17}H_{24}O_5N_2$ Casimiroedine, and its aurichloride (POWER and CALLAN), T., 1999; P., 258.

$C_{17}H_{26}O_3S$ Menthyl *p*-tolylsulphonate (HILDITCH), T., 238.

$C_{17}H_{27}O_5N$ Tetramethyl glucose-*p*-toluidide (IRVINE and HYND), T., 167; P., 9.

$C_{17}H_{30}O_2N_2$ 4:6-Diketo-5:5-dipropyl-2-*α*-propylbutyltetrahydropyrimidine (REMFRY), T., 621.

$C_{17}H_{33}O_4N_3$ Leucyl-*α*-amino-*n*-nonoylglycine (HOPWOOD and WEIZMANN), T., 1579; P., 214.

$C_{17}H_{34}O_3N_2$ *α*-Aminolaurylvaline (HOPWOOD and WEIZMANN), T., 574.

## 17 IV

$C_{17}H_{12}ONCl$ 2-Hydroxy-*α*-naphthylidene-*o*-, *m*-, and *p*-chloroanilines (SENIER and CLARKE), T., 2081.

$C_{17}H_{12}ONBr$ 2-Hydroxy-*α*-naphthylidene-*o*-, *m*-, and *p*-bromoanilines (SENIER and CLARKE), T., 2082.

$C_{17}H_{13}O_6N_3S$ Toluene-*p*-sulphonyl-1:6-dinitro-*β*-naphthylamine (MORGAN and MICKLETHWAIT), P.,

$C_{17}H_{21}ON_3S$ Camphorquinonephenylthiocarbamylhydrazone (FORSTER and ZIMMERLI), T., 490; P., 50.

$C_{17}H_{22}ON_5Br$ Semicarbazone of camphorquinone-*p*-bromophenylhydrazone (FORSTER, TROTTER and WEINTROUBE), T., 1989.

$C_{17}H_{31}O_4N_2Br$ *α*-Bromo*iso*hexoyl-*α*-amino-*m*-nonoylglycine (HOPWOOD and WEIZMANN), T., 1579.

$C_{17}H_{32}O_3NBr$ *α*-Bromolaurylvaline (HOPWOOD and WEIZMANN), T., 574.

## $C_{18}$ Group.

$C_{18}H_{10}O_6$ Hydrindantin (RUHEMANN), T., 797; P., 97; formation of (RUHEMANN), T., 1306; P., 163.

$C_{18}H_{14}O_4$ 1:3-Diketo-2-*o*-veratrylidenehydrindene (PERKIN, ROBERTS and ROBINSON), P., 58.

$C_{18}H_{16}O_4$ *α*- and *β*-Stilbenediol diacetates, nitration of (FRANCIS and KEANE), T., 347; P., 44.

$C_{18}H_{20}O$ Dibenzyl*iso*propenylcarbinol (PARRY), T., 1173; P., 142.

$C_{18}H_{20}O_7$ Kino methyl ether (SIMONSEN), T., 1532.

$C_{18}H_{22}O_2$ *αα*-Dibenzyl-*β*-methylpropane-*αβ*-diol (PARRY), T., 1173, P., 142.

$C_{18}H_{24}N_2$ *s*-Dibenzyldimethylethylenediamine (CLARKE), T., 1935.

$C_{18}H_{28}O_3$ Trimethyldihydroresorcin anhydride (CROSSLEY and RENOUF), T., 1108.

$C_{18}H_{32}O_{16}$ Raffinose (+ $5H_2O$), hydrolysis of (GLOVER), T., 371.

$C_{18}H_{28}O_2$ Stearic acid, conductivity of the sodium salt of (BOWDEN), T., 191; P., 5.

### 18 III

$C_{18}H_9O_4N$ Diketohydrindylidenediketohydrindamine, and its ammonium salt (RUHEMANN), T., 1491; P., 210.

$C_{18}H_{12}O_2N_2$ Phthalyl-*α*- and *β*-naphthylhydrazides (CHATTAWAY and WÜNSCH), T., 2265.

$C_{18}H_{13}O_3N$ 2-Hydroxy-*α*-naphthylidene-*o*-, *m*-, and *p*-aminobenzoic acids (SENIER and CLARKE), T., 2083.

$C_{18}H_{14}O_7N_2$ 2′:4′-Dinitro-2-methoxy-3:4-methylenedioxy-6-vinylstilbene (HOPE and ROBINSON), T., 2130.

$C_{18}H_{14}O_{10}N_6$ Triacetyl derivative of 3-*p*-nitrobenzeneazo-2:5-dinitro-4-acetylaminophenol (MELDOLA and KUNTZEN), T., 43.

$C_{18}H_{15}O_2N$ 2-Hydroxy-*α*-naphthylidene-*o*-, *m*-, and *p*-anisidines (SENIER and CLARKE), T., 2083.

$C_{18}H_{16}O_2N_2$ 1:3-Diketo-2-*p*-dimethylaminobenzylidenehydrindamine (RUHEMANN), T., 1490.

$C_{18}H_{17}O_3N$ *cis*- and *trans*- Semianilides of *α*-benzylglutaconic acid (THOLE and THORPE), T., 2232.

$C_{18}H_{17}O_6N_3$ Anhydrohydrastinine-2:4-dinitrotoluene (HOPE and ROBINSON), T., 2137.

$C_{18}H_{17}O_{13}N$ Acid, from the preparation of nitrogallic acid trimethyl ether (HARDING), T., 1595.

$C_{18}H_{18}O_2N_2$ Propylmalonylbenzidine (REMFRY), T., 622.

Substance, from aniline and 6-chloro-3-methyl-*α*-pyrone (THOLE and THORPE), T., 2225.

$C_{18}H_{18}O_5N_4$ 4:7-Dinitro-1-phenyl-3-methyl-2-*iso*butyl-6-benziminazolone (MELDOLA and KUNTZEN), T., 2043.

$C_{18}H_{18}N_3Sb$ Tri-*m*-aminotriphenylstibine, and its hydrochloride (MORGAN and MICKLETHWAIT), T.. 2292; P., 274.

$C_{18}H_{19}ON$ Phenylcyanomethylenecamphor (FORSTER and WITHERS), P.,

$C_{18}H_{19}O_2N$ 6:8-Dimethoxy-1-benzyl-3:4-dihydro*iso*quinoline, and its salts (SALWAY), T., 1323; P., 192.

Dihydroxydihydrindamine, and its resolution into active components and their salts (POPE and READ), T., 2071; P., 259.

$C_{18}H_{20}O_2N_2$ 2-Diethylamino-2-phenyldihydro-1:3-benzoxazine-4-one, and its hydrochloride (TITHERLEY and HUGHES), T., 1503.

$C_{18}H_{20}O_3N_2$ Cinchotenine, absorption spectra of (DOBBIE and LAUDER), T., 1261.

$C_{18}H_{20}O_4N_2$ Dibenzylaminosuccinic acid, and its salts (FRANKLAND), T., 1781; P., 206.

Dibenzylamides of tartaric acid (FRANKLAND), T., 1782; P., 206.

$C_{18}H_{20}O_6N_4$ 4:7-Dinitro-6-hydroxy-1′-phenyl-3-methyl-2-*iso*butyl-2-benziminazolol (MELDOLA and KUNTZEN), T., 2044.

4:7-Dinitro-6-hydroxy-1-phenyl-2-*iso*butyl-3-methylbenziminazolium hydroxide, salts of (MELDOLA and KUNTZEN), T., 2043.

$C_{18}H_{21}O_3N$ Phenylacetyl-β-3:5-dimethoxyphenylethylamide (SALWAY), T., 1322; P., 192.

$C_{18}H_{21}O_4N$ Hydroxycodeine (*neopine*), and its salts (DOBBIE and LAUDER), T., 34.

$C_{18}H_{23}O_3N$ Methyl benzoylaminolauronate (WEIR), T., 1276; P., 154.

$C_{18}H_{25}O_2Cl$ Menthyl phenylchloroacetate, preparation and rotation of (COHEN), T., 1065.

$C_{18}H_{25}O_2Br$ Menthyl phenylbromoacetate, preparation and rotation of (COHEN), T., 1065.

$C_{18}H_{36}O_3N_2$ α-Aminolauryl-leucine (HOPWOOD and WEIZMANN), T., 574.

### 18 IV

$C_{18}H_{20}O_4N_2Br$ Benzylamine benzylaminobromosuccinate (FRANKLAND), T., 1780; P., 206.

$C_{18}H_{23}O_{14}S_2Sb$ Triphenylstibinedihydroxidetrisulphonic acid, and its salts (MORGAN and MICKLETHWAIT), T., 2297.

$C_{18}H_{27}O_5NS$ α-*p*-Hydroxyphenylethylamine *d*-camphorsulphonate, and its active forms (MOORE), T., 419; P., 42.

$C_{18}H_{34}O_3NBr$ α-Bromolauryl-leucine (HOPWOOD and WEIZMANN), T., 574.

## $C_{19}$ Group.

$C_{19}H_{12}O_2$ 9-Phenylfluorone (POPE and HOWARD), T., 548; P., 53.

$C_{19}H_{12}O_7$ Acetylrheinolic acid (TUTIN and CLEWER), T., 954.

$C_{19}H_{12}O_8$ Diacetylrhein (TUTIN and CLEWER), T., 951.

$C_{19}H_{16}O_4$ 4:5-Dimethoxy-2-*o*-anisylidene-1-hydrindone (PERKIN, ROBERTS and ROBINSON), P., 58.

$C_{19}H_{22}N_4$ Osazone of 3:4-diketo-1:1-dimethyl*cyclo*pentane (BLANC and THORPE), T., 2012.

$C_{19}H_{24}O_6$ Ethyl γ-carbethoxy-α-benzylglutaconate (THOLE and THORPE), T., 2200.

### 19 III

$C_{19}H_{11}OCl_3$ 3:6-Dichloro-9-phenylxanthonium chloride (POPE and HOWARD), T., 550; P., 52.

$C_{19}H_{14}O_3N_2$ Dicinnamoylcarbamide (REMFRY), T., 623.

$C_{19}H_{15}O_2N_3$ *o*-Carboxybenzeneazodiphenylamine, and its sodium salt (HOWARD and POPE), T., 1334.

$C_{19}H_{17}ON$ 2-Hydroxy-α-naphthylidene-*o*-4-, *m*-4-, and *p*-xylidines (SENIER and CLARKE), T., 2084.

$C_{19}H_{17}O_2N_3$ *o*-Carboxybenzeneazodimethyl-α-naphthylamine, and its sodium salt (HOWARD and POPE), T., 1335.

$C_{19}H_{18}O_9N_4$ Anhydrocotarnine-2:4:6-trinitrotoluene (HOPE and ROBINSON), T., 2133.

$C_{19}H_{19}O_7N_3$ Anhydrocotarnine-2:4-, and 2:6-dinitrotoluenes, and their salts (HOPE and ROBINSON), T., 2126, 2128.

$C_{19}H_{20}O_2N_2$ Anilide of αγ-dimethylglutaconic acid (THOLE and THORPE), T., 2238.

Diethylmalonylbenzidine (REMFRY), T., 622.

$C_{19}H_{20}O_5N_2$ Anhydrocotarnine-2-, and 4-nitrotoluene, and their picrates (Hope and Robinson), T., 2123.

$C_{19}H_{21}ON$ 1-Benzoyl-2:6:8-trimethyltetrahydroquinoline (Jones and Evans), T., 336.

$C_{19}H_{22}ON_2$ Cinchonine, and its salts, absorption spectra of (Dobbie and Lauder), T., 1254; P., 148.

Homocinchonine, absorption spectra of (Dobbie and Lauder), T., 1261.

Cinchonidine, absorption spectra of (Dobbie and Lauder), T., 1261.

$C_{19}H_{22}O_2N_2$ Cupreine, absorption spectrum of (Dobbie and Fox), P., .

$C_{19}H_{23}O_2N$ 6-8-Dimethoxy-1-benzyl-2-methyl-1:2:3:4-tetrahydro*iso*quinoline, and its picrate (Salway), T., 1324; P., 192.

$C_{19}H_{24}ON_2$ Cinchonamine, absorption spectra of (Dobbie and Lauder), T., 1261.

$C_{19}H_{24}NI$ 1-Benzyl-2:6:8-trimethyltetrahydroquinoline (Jones and Evans), T., 338.

$C_{19}H_{27}O_{12}N$ Maltose-*o*-carboxyanilide (Irvine and Hynd), T., 165; P., 9.

$C_{19}H_{29}O_2N$ Menthyl dihydrocinnamenylcarbamate (Forster and Stötter), T., 1339.

19 IV

$C_{19}H_{35}O_4N_2Br$ α-Bromo*iso*valeryl-α-amino-*n*-nonylvaline (Hopwood and Weizmann), T., 1581.

## $C_{20}$ Group.

$C_{20}H_{20}O_5$ 5:6-Dimethoxy-2-*o*-veratrylidene-1-hydrindone (Perkin, Roberts and Robinson), P., 58.

$C_{20}H_{20}O_7$ Pentamethylquercetin, salts of (Watson), P., 164.

$C_{20}H_{18}O_6$ Triacetyltrihydroxydihydroanthracene (Tutin and Clewer), T., 961.

$C_{20}H_{24}N_4$ Osazone of 3:4-diketo-1:1:2-trimethyl*cyclo*pentane (Blanc and Thorpe), T., 2011.

$C_{20}H_{30}O_5$ Substance, from bryony root (Power and Moore), T., 940; P., 118.

20 III

$C_{20}H_{12}O_2S$ Dehydro-β-naphthol sulphide (Hilditch and Smiles), T., 981.

$C_{20}H_{12}O_3Cl_2$ 3:6-Dichloro-9-phenylxanthen-9-carboxylic acid (Pope and Howard), T., 550.

$C_{20}H_{12}O_3S$ Naphthathioxin dioxide (Hilditch and Smiles), T., 415.

$C_{20}H_{14}O_2Cl_2$ 3:6-Dichloro-9-phenylxanthyl methyl ether (Pope and Howard), T., 551.

$C_{20}H_{14}O_4N_2$ *p*-Benzoyloxybenzylidene-*p*-nitroaniline (Pope), P., 74.

$C_{20}H_{15}O_4N_3$ *p*-Benzoyloxybenzaldehyde-*p*-nitrophenylhydrazone (Pope), P., 74.

$C_{20}H_{16}O_2N_2$ *p*-Benzoyloxybenzaldehydephenylhydrazone (Pope), P., 74.

Benzaldehyde *syn*-diphenylcarbamyloxime (Dunn), P., 239.

Nitroso*iso*oxyberberine (Bland, Perkin and Robinson), P., 59.

$C_{20}H_{17}O_4N$ Berberine, constitution and spectroscopic examination of (Tinkler), T., 1340; P., 162.

$C_{20}H_{17}O_5N$ *neo*Oxyberberine, and its salts (Pyman), T., 1695; P., 215.

*iso*Oxyberberine (Bland, Perkin and Robinson), P., 59.

$C_{20}H_{17}O_{13}N_3$ Trinitropentamethylquercetin (Watson), P., 164.

$C_{20}H_{18}O_7N_2$ Anhydrocotarnine-5-nitrophthalide, and its salts (Hope and Robinson), T., 1158.

$C_{20}H_{18}O_7Br_2$ Dibromopentamethylquercetin, and its hydrobromide (WATSON), P., 164.

$C_{20}H_{19}ON$ 2-Hydroxy-α-naphthylidene-ψ-cumidine (SENIER and CLARKE), T., 2084.

$C_{20}H_{19}O_5N$ Anhydrocotarninephthalide, synthesis of, and its salts (HOPE and ROBINSON), T., 1163; P., 125.

Papaveraldine, identity of xanthaline with (DOBSON and PERKIN), T., 135; P., 4.

Xanthaline, and its salts, and its identity with papaveraldine (DOBSON and PERKIN), T., 135; P., 4.

$C_{20}H_{19}O_9N$ Nitropentamethylquercetin (WATSON), P., 164.

$C_{20}H_{20}O_5N_2$ Anhydrocotarnine-5-aminophthalide, and its salts (HOPE and ROBINSON), T., 1159.

$C_{20}H_{20}O_8N_2$ Pentamethylquercetindiazonium hydroxide, salts of (WATSON), P., 165.

$C_{20}H_{21}O_5N_3$ Anhydrocotarnine-5-hydrazinophthalide (HOPE and ROBINSON), T., 1162.

$C_{20}H_{21}O_7N$ Aminopentamethylquercetin, and its salts (WATSON), P., 164.

$C_{20}H_{21}O_7N_3$ 2′:4′- and 2′:6′-Dinitro-2-methoxy-3:4-methylenedioxy-6-β-dimethylaminoethylstilbene (HOPE and ROBINSON), T., 2127, 2129.

$C_{20}H_{22}O_2N_2$ Gelsemine, and its methiodide (MOORE), T., 1231; P., 157.

$C_{20}H_{24}O_2N_2$ Quinine, absorption spectrum of (DOBBIE and FOX), P., 325; and its salts, absorption spectra of (DOBBIE and LAUDER), T., 1254; P., 148.

$C_{20}H_{24}O_3N_2$ *apo*Gelsemine, and its salts (MOORE), T., 1234; P., 157.

*isoapo*Gelsemine, and its salts (MOORE), T., 1239; P., 157.

### 20 IV

$C_{20}H_{17}OClS_2$ Thiodiphenylenephenetylsulphonium chloride, platinum salt (HILDITCH), T., 1096.

$C_{20}H_{17}O_9NBr_2$ Dibromonitropentamethylquercetin (WATSON), P., 165.

$C_{20}H_{18}O_5NI$ Anhydrocotarnine-5-iodophthalide, and its salts (HOPE and ROBINSON), T., 1161.

$C_{20}H_{21}O_2NP$ Phenylphosphordi-*p*-toluidide (KIPPING and CHALLENGER), T., 636.

$C_{20}H_{23}O_2N_2Cl$ Chloro*isoapo*gelsemine, and its salts (MOORE), T., 1237; P., 157.

$C_{20}H_{23}O_2N_2Br$ Bromo*isoapo*gelsemine (MOORE), T., 1238.

## $C_{21}$ Group.

$C_{21}H_{16}N_2$ 1:4:5-Triphenylglyoxaline, and its salts (EVEREST and MCCOMBIE), T., 1751; P., 209.

$C_{21}H_{20}O$ Phenyldibenzylcarbinol, preparation of (DAVIES and KIPPING), T., 299.

$C_{21}H_{20}O_{10}$ Acetylkino (SIMONSEN), T., 1533.

$C_{21}H_{22}O_8$ Myricetin hexamethyl ether (PERKIN), T., 1721; P., 225.

$C_{21}H_{42}O$ Didecyl ketone (PICKARD and KENYON), T., 57.

### 21 III

$C_{21}H_{15}O_3Cl$ 3-Acetoxy-9-phenylxanthonium chloride (POPE and HOWARD), T., 549.

$C_{21}H_{15}O_6N$ Aniline salt of rhein (TUTIN and CLEWER), T., 951.

$C_{21}H_{16}O_2N_2$ Phthalylphenylbenzylhydrazide (CHATTAWAY and WÜNSCH), T., 2264.

$C_{21}H_{16}O_2N_4$ Benzeneazocarbonylcoumaranonephenylhydrazone (MERRIMAN), T., 915; P., 102.

$C_{21}H_{16}O_2Cl_2$ 3:6-Dichloro-9-phenylxanthyl ethyl ether (POPE and HOWARD), T., 551.

$C_{21}H_{19}O_2N$ α-Keto-β-formylanilino-αβ-diphenylethane (EVEREST and MCCOMBIE), T., 1750.

$C_{21}H_{21}O_9N_3$ Methyl anhydrocotarnine-2:4-dinitrophenylacetate (HOPE and ROBINSON), T., 2132.

$C_{21}H_{23}O_6N$ Dedimethoxynarceine, and its salts (HOPE and ROBINSON), T., 1168.

$C_{21}H_{24}ON_2$ Acetylcinchonine and acetylcinchonidine (HILDITCH), T., 238.

$C_{21}H_{24}O_2N_2$ Dipropylmalonylbenzidine (REMFRY), T., 622.

## 21 IV

$C_{21}H_{20}O_5NCl$ Methoxyberberinium chloride (PYMAN), T., 1696; P., 215.

$C_{21}H_{20}O_5NI$ Methoxyberberinium iodide (PYMAN), T., 1696; P., 215.

$C_{21}H_{23}O_6N_2S$ β-Naphthalenesulphonyl-α-amino-*n*-nonoylglycine (HOPWOOD and WEIZMANN), T., 1579.

# $C_{22}$ Group.

$C_{22}H_{18}N_2$ 1:4:5-Triphenyl-2-methylglyoxaline, and its salts (EVEREST and MCCOMBIE), T., 1750; P., 209.

$C_{22}H_{22}O_6$ Anhydrocotarnine-5-acetylaminophthalide (HOPE and ROBINSON), T., 1160.

$C_{22}H_{36}O_4$ Bryonol (POWER and MOORE), T., 943; P., 118.

$C_{22}H_{38}O_4$ β-Thymomenthol (HENDERSON and BOYD), T., 2161.

Thymomenthyl oxalate (HENDERSON and BOYD), T., 2160; P., 276.

$C_{22}H_{38}O_8$ Ethyl decane-δδηη-tetracarboxylate (REMFRY), T., 623.

## 22 III

$C_{22}H_{14}O_{10}N_8$ 4:4′:7:7′-Tetranitro-6:6′-dihydroxy-1:1′-*p*-phenylene-2:2′-dimethylbisbenziminazole, and its silver salt (MELDOLA and KUNTZEN), T., 40.

$C_{22}H_{16}O_3Cl_2$ Ethyl 3:6-dichloro-9-phenylxanthen-9-carboxylate (POPE and HOWARD), T., 551.

$C_{22}H_{19}O_3N$ *d*- and *l*-Dibenzoyl derivatives of α-*p*-hydroxyphenylethylamine *d*-camphorsulphonate (MOORE), T., 420.

$C_{22}H_{19}O_6N$ Acetyl*iso*oxyberberine (BLAND, PERKIN and ROBINSON), P., 59.

$C_{22}H_{23}O_7N$ Gnoscopine (dl-*narcotine*), synthesis and resolution of, and its salts (PERKIN and ROBINSON), T., 775; P., 101.

*d*- and *l*-Narcotine, *d*- and *l*-bromocamphorsulphonates of (PERKIN and ROBINSON), T., 788.

$C_{22}H_{24}O_3N_2$ Acetylgelsemine, and its hydrochloride (MOORE), T., 1232; P., 157.

$C_{22}H_{26}O_4N_2$ Monoacetyl*apo*gelsemine (MOORE), T., 1236.

$C_{22}H_{28}N_2S$ Substance, from carvone hydrosulphide and hydrogen cyanide (STEELE), P., 241.

$C_{22}H_{30}O_4S$ Substance, from hydrolysis of compound of carvone hydrosulphide and hydrogen cyanide (STEELE), P., 241.

## 22 IV

$C_{22}H_{11}ONCl_2$ 3:6-Dichloro-9-cyano-9-phenylxanthen (POPE and HOWARD), T., 550.

$C_{22}H_{22}O_7NCl$ Chlorognoscopine, and its picrate (PERKIN and ROBINSON), T., 786.

$C_{22}H_{22}O_7NBr$ Bromognoscopine, and its salts (PERKIN and ROBINSON), T., 786.
$C_{22}H_{22}O_7NI$ Iodognoscopine, and its salts (PERKIN and ROBINSON), T., 787.
$C_{22}H_{24}ON_2S_2$ Thiodimethylanilino- derivative of hydroxydimethylaminophenyl sulphide (PRESCOTT and SMILES), T., 647.
$C_{22}H_{32}O_5N_2Cl$ Chloroacetyl*isoapo*gelsemine (MOORE), T., 1237.

## $C_{23}$ Group.

$C_{23}H_{14}O_2$ 11-Phenylphenonaphthafluorone (POPE and HOWARD), T., 549.
$C_{23}H_{22}O_{10}$ Penta-acetyldihydroxybenzhydrol (CROSS and BEVAN), T., 1455.
$C_{23}H_{36}O_4$ Calabarol (SALWAY), T., 2156.

### 23 III

$C_{23}H_{17}O_2N_3$ *o*-Carboxybenzeneazophenyl-*α*-naphthylamine, and its sodium salt (HOWARD and POPE), T., 1336.
$C_{23}H_{21}O_4N$ Dibenzoyl derivative of *α*-*p*-hydroxy-*m*-methoxyphenylethylamine (MOORE), T., 418.
$C_{23}H_{22}O_7N_2$ Casimiroitine (POWER and CALLAN), T., 1997; P., 258.
$C_{23}H_{23}O_6N$ *neo*Oxyberberineacetone, and its hydrochloride (PYMAN), T., 1694; P., 215.
$C_{23}H_{24}O_6N_2$ Buphanitine, and its salts (TUTIN), T., 1243; P., 149.
$C_{23}H_{26}O_4N_2$ Brucine, salts of, with organic acids (HILDITCH), T., 234; phthalates and succinates of (PICKARD and KENYON), T., 60.

### 23 IV

$C_{23}H_{22}O_2N_2S_2$ Dimethylaminophenylthiol derivative of hydroxydimethylaminothioxanthone, and its platinichloride (MARSDEN and SMILES), T., 1357.
$C_{23}H_{20}O_3NP$ Phenyl-*β*-naphthylphosphor-*p*-toluidide (KIPPING and CHALLENGER), T., 636.

## $C_{24}$ Group.

$C_{24}H_{22}O_2$ *αα*-Dinaphthyl-*β*-methylpropane-*αβ*-diol (PARRY), T., 1174; P., 142.
$C_{24}H_{28}O_6$ Casimirolid (POWER and CALLAN), T., 2004; P., 258.
$C_{24}H_{30}O_7$ Casimiroic acid, and its silver salt (POWER and CALLAN), T., 2004; P., 258.
$C_{24}H_{38}O_4$ Dimenthyl acetylenedicarboxylate (HILDITCH), T., 223; P., 6.
$C_{24}H_{40}O_4$ Dimenthyl fumarate (HILDITCH), T., 223; P., 6.
$C_{24}H_{42}O_4$ Dimenthyl succinate (HILDITCH), T., 222; P., 6.

### 24 III

$C_{24}H_{16}O_4N_8$ Bisnitrobenzeneazo-azobenzene (GREEN and BEARDER), T. 1971; P., 229.
$C_{24}H_{20}O_8N_2$ Casimiroine, and its salts (POWER and CALLAN), T., 1996; P., 258.
$C_{24}H_{25}O_{10}N$ Tetraethyl 6-nitrodiphenyl-3:4:3′:4′-tetrocarboxylate (CROSSLEY and HAMPSHIRE), T., 724.
$C_{24}H_{27}O_8K$ *β*-Butyl hydrogen potassium phthalate (PICKARD and KENYON), T., 58.
$C_{24}H_{28}O_4S$ Triphenetylsulphonium hydroxide, dichromate of (HILDITCH), T., 1099.
$C_{24}H_{28}O_5N_2$ Diacetyl*apo*gelsemine, and its hydrochloride (MOORE), T., 1236.
Diacetyl*isoapo*gelsemine, and its hydrochloride (MOORE), T., 1240.

### 24 IV

$C_{24}H_{24}O_5N_2S$ β-Naphthalenesulphonylaminolaurylglycine (Hopwood and Weizmann), T., 573.

$C_{24}H_{40}ONCl$ *o*- and *p*-Chlorostearanilide (King and Orton), T., 1380.

## $C_{25}$ Group.

$C_{25}H_{32}O_7$ Methyl casimiroate (Power and Callan), T., 2005; P., 258.

$C_{25}H_{34}O_5$ Withaniol (Power and Salway), T., 497; P., 53.

$C_{25}H_{39}N$ Pentadecyl-α- and β-naphthylamines, and their salts (Le Sueur), T., 830, 832.

### 25 III

$C_{25}H_{18}O_6N_4$ Dinitro- derivative of 5-dimethylaminoanilo-3:4-diphenyl*cyclo*penten-1:2-dione (Ruhemann and Naunton), P., 310.

$C_{25}H_{20}O_2N_2$ 5-Dimethylaminoanilo-3:4-diphenyl*cyclo*penten-1:2-dione (Ruhemann and Naunton), P., 309.

### 25 IV

$C_{25}H_{18}O_2N_2Br_2$ Dibromo- derivative of 5-dimethylaminoanilo-3:4-diphenyl-*cyclo*penten-1:2-dione (Ruhemann and Naunton), P., 310.

$C_{25}H_{19}O_2N_2Br$ Bromo- derivative of 5-dimethylaminoanilo-3:4-diphenyl-*cyclo*penten-1:2-dione (Ruhemann and Naunton), P., 310.

$C_{25}H_{26}O_3N_2S$ Benzenesulphonylcinchonine and benzenesulphonylcinchonidine (Hilditch), T., 239.

## $C_{26}$ Group.

$C_{26}H_{18}O_{16}$ Acetylcaeruleoellagic acid (Perkin), T., 1443; P., 194.

$C_{26}H_{22}N_4$ Phenylhydrazone of 2:2′-dialdehydodiphenyl (Kenner and Turner), T., 2112.

$C_{26}H_{32}O_8$ Acetylcasimiroic acid (Power and Callan), T., 2005; P., 258.

$C_{26}H_{40}O_6$ Diacetylbryonol (Power and Moore), T., 943; P., 118.

### 26 III

$C_{26}H_{18}OS_2$ Thioxanthenyl oxide (Hilditch and Smiles), T., 158; P., 3.

$C_{26}H_{20}O_2N_2$ Salicyldiphenylbenzamidine (Titherley and Hughes), T., 1504.

$C_{26}H_{26}O_2N_2$ Benzoylcinchonine and benzoylcinchonidine (Hilditch), T., 239.

$C_{26}H_{32}O_6N_2$ Di-α-carbethoxybutyrylbenzidine (Remfry), T., 622.

$C_{26}H_{39}O_2N$ α-1-Naphthylaminopalmitic acid (Le Sueur), T., 832.
α-2-Naphthylaminopalmitic acid (Le Sueur), T., 829.

### 26 IV

$C_{26}H_{15}O_5Cl_2S$ Dibenzoyl-*p*-chlorophenol *o*-sulphoxide (Hilditch and Smiles), T., 980.

## $C_{27}$ Group.

$C_{27}H_{20}N_2$ 1:2:4:5-Tetraphenylglyoxaline, and its salts (Everest and McCombie), T., 1748; P., 209.

$C_{27}H_{36}O_6$ Acetylwithaniol (Power and Salway), T., 497.

$C_{27}H_{49}N$ Heptadecyl-α- and β-naphthylamines, and their salts (Le Sueur), T., 828; P., 104.

$C_{27}H_{46}O$ Cholesterol, compounds of, with fatty acids (PARTINGTON), T., 313; P., 14.
Phytosterol, from bryony root (POWER and MOORE), T., 942; P., 118.
Phytosterol from *Withania somnifera* (POWER and SALWAY), T., 493; P., 53.

27 III

$C_{27}H_{21}O_2N$ α-Keto-β-benzoylanilino-αβ-diphenylethane (EVEREST and MCCOMBIE), T., 1748.
$C_{27}H_{21}O_{16}N_9$ Methylammonium acid picraminobenzoates (CROCKER and MATTHEWS), T., 307; P., 22.
$C_{27}H_{21}O_{16}N_{11}$ Guanidine acid *m*-picraminobenzoate (CROCKER and MATTHEWS), T., 310.

## $C_{28}$ Group.

$C_{28}H_{28}O_4$ Ditoluquinhydrone (MOIR), P., 226.
$C_{28}H_{28}O_{16}$ Acetyloctahydroxydiphenyl (PERKIN), T., 1447; P., 195.
$C_{28}H_{30}N_4$ Ditoluquinhydronedi-imine, and its salts (MOIR), P., 226.

28 III

$C_{28}H_{20}O_4Br_2$ 5:5′-Dibromo-4:4′-dibenzoyloxy-3:3′-ditolyl (MOIR), P., 227.
$C_{28}H_{22}O_4Br_4$ Dibromoditoluquinhydrone (MOIR), P., 227.
$C_{28}H_{23}O_{16}N_9$ Ethylammonium acid picraminobenzoates (CROCKER and MATTHEWS), T., 307; P. 22.
$C_{28}H_{49}O_2N$ α-2-Naphthylaminostearic acid (LE SUEUR), T., 828.
α-1-Naphthylaminostearic acid (LE SUEUR), T., 831; P., 104.

28 IV

$C_{28}H_{27}O_2ClS_2$ Phenylthiolphenyldiphenetylsulphonium chloride, platinum salt (HILDITCH), T., 1096.

## $C_{29}$ Group.

$C_{29}H_{60}$ Hydrocarbon, from the oil of *Myrica gale, L.* (PICKLES), T., 1766; P., 220.

29 II

$C_{29}H_{18}O_6$ Dibenzoylchrysophanic acid (TUTIN and CLEWER), T., 956.

## $C_{30}$ Group.

$C_{30}H_{16}O_8$ Dibenzoylrhein, and its potassium salt (TUTIN and CLEWER), T., 952.
$C_{30}H_{20}O_7$ Dibenzoylemodin monomethyl ether (TUTIN and CLEWER), T., 953.
$C_{30}H_{46}O_8$ Withanic acid (POWER and SALWAY), T., 505; P., 53.

30 III

$C_{30}H_{28}O_8N_2$ Pentamethylquercetinazo-β-naphthol (WATSON), P., 165.
$C_{30}H_{34}OSi_2$ Dibenzylmethylsilicyl oxide (KIPPING and HACKFORD), T., 142.

## $C_{31}$ Group.

$C_{31}H_{21}O_{16}N_9$ Pyridine acid *o*-picraminobenzoate (CROCKER and MATTHEWS), T., 308.

### 31 IV

$C_{31}H_{23}ON_2Cl$ 3:6-Dianilino-9-phenylxanthenyl chloride (Pope and Howard), T., 552.

$C_{31}H_{25}O_3N_2Cl$ 3:6-Di-*p*-hydroxyphenylamino-9-phenylxanthenyl chloride (Pope and Howard), T., 553.

$C_{31}H_{27}ON_4Cl_3$ 3:6-Di-*p*-aminophenylamino-9-phenylxanthenyl chloride (Pope and Howard), T., 553.

$C_{31}H_{43}ONS$ Pentadecyl-α- and β-naphthylbenzenesulphonamide (Le Sueur), T., 830, 833.

## $C_{32}$ Group.

$C_{32}H_{44}O_7$ Somnirol (Power and Salway), T., 502; P., 53.

### 32 III

$C_{32}H_{23}O_{16}N_9$ Aniline acid *o*-picraminobenzoate (Crocker and Matthews), T., 308.

$C_{32}H_{24}N_4S$ Phenylhydrazone of dehydro-β-naphthol sulphide (Hilditch and Smiles), T., 982.

$C_{32}H_{33}O_{12}N_5$ Dianhydrodicotarnine-2:4:6-trinitro-*m*-xylene (Hope and Robinson), T., 2134.

### 32 IV

$C_{32}H_{24}O_6N_6S_2$ Diphenylbisazonaphthylaminesulphonic acid, sodium salt (*Congo red*), osmotic pressure and conductivity of aqueous solutions of (Donnan and Harris), T., 1554; P., 209.

## $C_{33}$ Group.

$C_{33}H_{46}O_7$ Somnitol (Power and Salway), T., 504; P., 53.

### 33 III

$C_{33}H_{26}ON_2$ Benzoyldianilinostilbene, and its salts (Everest and McCombie), T., 1758.

$C_{33}H_{33}O_{12}N_5$ Dianhydrocotarninetrinitromesitylene (Hope and Robinson), T., 2135.

### 33 IV

$C_{33}H_{27}ON_2Cl$ 3:6-Di-*o*- and *p*-toluidino-9-phenylxanthenyl chlorides (Pope and Howard), T., 552.

$C_{33}H_{47}O_2NS$ Heptadecyl-α and β-naphthylbenzenesulphonamide (Le Sueur), T., 829, 832.

## $C_{34}$ Group.

$C_{34}H_{48}O_8$ Acetylsomnirol (Power and Salway), T., 503.

### 34 III

$C_{34}H_{24}O_4S$ Dibenzoyl-β-naphthol sulphide (Hilditch and Smiles), T., 983.

$C_{34}H_{24}O_5S$ Dibenzoyl-β-naphthol sulphoxide (Hilditch and Smiles), T., 983.

## $C_{35}$ Group.

$C_{35}H_{44}O_6$ Dibenzoyltrifolianol (Salway), T., 2155.

$C_{35}H_{66}O$ Elaidone (Easterfield and Taylor), T., 2306; P., 279.
Oleone (Easterfield and Taylor), T., 2303; P., 279.

$C_{35}H_{72}O$ Diheptadecylcarbinol, and its acetate (Easterfield and Taylor), T., 2301; P., 279.

### 35 III

$C_{35}H_{67}ON$ Elaidoneoxime (EASTERFIELD and TAYLOR), T., 2306; P., 279.
Oleoneoxime (EASTERFIELD and TAYLOR), T., 2305; P., 279.

## $C_{36}$ Group.

$C_{36}H_{22}O_8$ Tribenzoylemodin (TUTIN and CLEWER), T., 953.
$C_{36}H_{30}Si_2$ Hexaphenylsilicoethane (KIPPING), P., 144.

## $C_{37}$ Group.

$C_{37}H_{44}O_6$ Dibenzoylcalabarol (SALWAY), T., 2156; P. 273.
$C_{37}H_{50}O_9$ Diacetylsomnitol (POWER and SALWAY), T., 504; P., 53.

## $C_{39}$ Group.

$C_{39}H_{27}O_7N_5$ Compound, of benzoyldianilinostilbene and picric acid (EVEREST and MCCOMBIE), T., 1750.

### 39 IV

$C_{39}H_{27}ON_2Cl$ 3:6-Di-β-naphthylamino-9-phenylxanthenyl chloride (POPE and HOWARD), T., 552.

## $C_{40}$ Group.

$C_{40}H_{30}O_2N_2$ Dibenzoyldianilinostilbene, and its methiodide (EVEREST and MCCOMBIE), T., 1758; P., 218.

## $C_{43}$ Group.

$C_{43}H_{82}O$ Brassidone (EASTERFIELD and TAYLOR), T., 2306; P., 279.

### 43 III

$C_{43}H_{83}ON$ Brassidoneoxime (EASTERFIELD and TAYLOR), T., 2306; P., 279.

## $C_{45}$ Group.

$C_{45}H_{34}O_6N_4$ Compounds, of benzoyldianilinostilbene with *o*- and *p*-nitrophenol (EVEREST and MCCOMBIE), T., 1760.

## $C_{51}$ Group.

$C_{51}H_{104}O$ Dipentecosylcarbinol, and its acetate (EASTERFIELD and TAYLOR), T., 2302; P., 279.

### 51 III

$C_{51}H_{41}O_2N_2$ Compound, of benzoyldianilinostilbene and phenol (EVEREST and MCCOMBIE), T., 1760.
$C_{51}H_{103}ON$ Cerotoneoxime (EASTERFIELD and TAYLOR), T., 2302; P., 279.

## $C_{55}$ Group.

$C_{55}H_{110}O$ Montanone (EASTERFIELD and TAYLOR), T., 2302.

## 55 III

$C_{55}H_{111}ON$ Montanoneoxime (EASTERFIELD and TAYLOR), T., 2303; P., 279.

## $C_{56}$ Group.

$C_{56}H_{30}O_{16}$ Benzoylcaeruleoellagic acid (PERKIN), T., 1447; P., 195.

## $C_{59}$ Group.

$C_{59}H_{118}O$ Melissone (EASTERFIELD and TAYLOR), T., 2303; P., 279.

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## ERRATA.

### VOL. LXXXIX (TRANS., 1906).

| Page | Line | |
|---|---|---|
| 1468 | 11 and 12 | *for analysis read:* |

0·2801 gave 0·6353 $CO_2$ and 0·1850 $H_2O$. C = 61·86; H = 7·33.
$C_{10}H_{14}O_2N_2$ requires C = 61·9; H = 7·2 per cent.

### VOL. XCV (TRANS., 1909).

| Page | Line | |
|---|---|---|
| 1774 | 22* | *for* "$C_1$" *read* "$C_3$." |

### VOL. XCVII (TRANS., 1910).

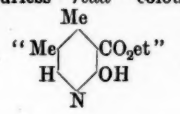
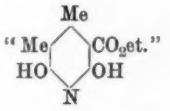
| Page | Line | |
|---|---|---|
| 2454 | 19* | *for* "a thousand" *read* "ten thousand." |
| 2460 | | last number in 6th column of *viscosities* at 0° *for* "9703" *read* "8703," and fourth number of 7th column of *viscosities at* 10° *for* "8236" *read* "9236." |
| 2462 | | Fig. 2 for "$\sqrt{normality}$" read "$\sqrt[3]{normality}$." |

### VOL. XCIX (TRANS., 1911).

| Page | Line | |
|---|---|---|
| 451 | 20 | *for* "acid" *read* "ester." |
| 810 | 17* | ,, "an acid salt, $C_6H_3O_6CuH$" *read* "a double salt, $C_6H_3O_6CuK$." |
| 810 | 15* | ,, "protocatechuate" *read* "pyrotartrate." |
| 810 | 14* | ,, "pyrotartrate and malate" *read* "protocatechuate and maleate." |
| 810 | 13* | ,, "$C_2$" *read* "$C_4$." |
| 1263 | 5* | ,, "Citraconic acid" *read* "Itaconic acid." |
| 1269 | 22* | ,, "*Special*" read "*Spatial.*" |
| 1386 | 14* | ,, "Paul" *read* "Pauly." |

* From bottom.

## ERRATA (*continued*)

| Page | Line | |
|---|---|---|
| 1545 | 4 | *for* "39·4" *read* "32·4." |
| 1662 | 10 | *alter to* "In 1865, on Menschutkin's return to St. Petersburg, he presented his." |
| 1835<br>1852 | 15<br>14 | *for* "RICHARD" *read* "ROBERTSHAW." |
| 1907 | 16 | *delete* "normal." |
| 1909 | 5* | *insert* "$\rightleftharpoons$" in equation. |
| 1948 | 18 | *for* "quinoid" *read* "quinonoid." |
| 2094 | 7 | ,, "colourless" *read* "coloured." |
| 2189 | 5 | ,,  *read*  |

* From bottom.